

## **Systems**

## **IBM 1130 Bibliography**

This bibliography lists and describes all technical manuals and related materials needed by those who plan for, install, program, or operate the IBM 1130 Computing System.

Order numbers, titles, current status, subject codes, and abstracts of the publications are provided.

This bibliography is regularly updated to include new or revised publications pertaining to this systems reference library.

The IBM logo, consisting of the letters "IBM" in a bold, sans-serif font, with each letter having a double outline.

### **Eleventh Edition (December 1973)**

This is a major revision of, and supersedes, GA26-5916-9. The listings and abstracts are completely updated; and in Part 3, which was introduced in the Tenth Edition, the subject code of each publication has now been added to the left of its order number.

Requests for IBM publications should be made to your IBM representative or to the IBM branch office serving your locality.

A form for readers' comments is provided at the back of this bibliography. If the form has been removed, comments may be addressed to IBM Corporation, Dept. 77A, 1133 Westchester Avenue, White Plains, New York 10604. Comments and suggestions become the property of IBM.

## Preface

For each major IBM data processing system, publications useful in planning, programming, installing and operating that system are assembled in a *system bibliography*.

### Organization of Bibliography

This system bibliography has three parts.

Part 1 lists publications by subject. Its organization is shown in the table of contents — with manuals under the headings being clustered by subject code and sorted by title.

Part 2 contains abstracts describing the items listed in Part 1.

Part 3 is a second list, in order-number sequence, of all items listed by subject sequence in Part 1.

**Note:** *Order numbers are sequenced by second character. The first character (G, S, or L) is the use key. (See "Identification of Availability.")*

### Subject Identification and Filing

Where a file number (e.g., 1130-36) appears on a publication, it identifies the system in the prefix (1130) and the subject classification in the suffix (36, i.e., control program).

#### Prefix of File Number

Publications associated with two system libraries identify both in the prefix (such as 1130/1800).

When manuals apply to *more* than two libraries, the system number isn't used. Instead, these few and more general publications have I/O device or other component numbers, or GENL, in the prefix: component number(s) if the manual concerns one or two components; or GENL if the manual concerns more than two (or no specific) components.

#### Subject Code

The suffix of the file number identifies the *subject* classification or *code*, such as 25 for FORTRAN or 15 for physical planning manuals and templates. (Part 1 of each bibliography starts with a standard index of subject codes and their definitions.)

File numbers with subject codes in the range of 00 through 40 are printed on publications, as an aid in filing manuals in any library which is organized by system and subject. Moreover, codes 00 through 40 are used in subscribing to SLSS (System Library Subscription Service).

Subject codes above 40 do not appear on publications, but are used to further categorize all other items within system bibliographies.

### Part 1

In Part 1, the subject code listing, *one* code is assigned to a publication. Items within the cluster for each code are in sequence. Normal sequencing is alphabetic, by the most apparent *keywords* in the titles of the manuals.

When one publication applies to more than one programming system, it is repeated in each applicable programming-system listing.

### Part 2

Before ordering copies of publications, check the abstract in Part 2 to be sure that your installation will require the information. Abstracts are listed in order-number sequence. (See note.)

### Part 3

Part 3, the current editions by order number, shows all recent supplements (Technical Newsletters, or TNLs) as well as the current editions. This part of the bibliography enables you to easily find any order number and check for its current edition(s) and any TNLs issued since the latest edition.

Part 3 also gives you the assigned subject code of each publication.

## Order Number

The publication order number identifies various facts about a publication, including:

#### Identification of Availability

The first character of the order number is the use key, which governs the availability of the document. Use key G means that the item is available to customers, through the IBM representative, without charge for quantities that meet normal requirements. Use key S means that the item is for sale through IBM branch offices. Use key L means that the item is available only to licensees for the IBM Program Product or other licensed program.

#### Identification of Logic Manuals

Publications that explain program logic have a "Y" as the second character of the order number: e.g., GY26-1234-5. (They also include "Program Logic Manual," "System Manual," "Logic," or similar wording in the title.) Such manuals are intended for use by persons involved in program support or alteration of the program design; they are not required for normal use or operation of the program.

#### Identification of Microfiche

An alphabetic character in the third position of an order number identifies a document on microfiche: e.g., S2C0-0301 or LYB6-5432-1.

### ***Extra Symbols (Flags)***

Maximum case: \*\*GC19-1000-0#\*

or: \*\*SC30-2000-2#+

A double asterisk preceding the order number indicates either a change in the publication (such as a new edition) or a new item.

When more than one edition of a publication is current, the order number suffix is followed by a number sign (#).

A single asterisk following the order number indicates that the item is for IBM World Trade use only.

A plus sign following the order number indicates that the item is for U.S.A. use only.

### **Updating**

To eliminate unnecessary delays in keeping publications current, changes and additions to them are distributed most quickly in the form of Technical Newsletters.

When the changed pages released in a TNL are inserted in the manual to which it applies, the base publication is brought up to date. The next reprint of the base publication incorporates the TNLs, and is assigned the next higher suffix number, but need not be ordered as it is the same as any prior edition indicated as also current.

### ***TNL Masthead***

The masthead of the TNL cover page includes the order number of the base publication to which the TNL applies. All previously-issued TNLs are listed in

the masthead so that you may verify receipt of all changes. Each TNL is separately orderable.

### ***Bibliography Revision Schedule***

Between revisions, TNLs are issued to update the bibliography. Each TNL includes pages to be added or replaced wherever necessary to reflect the addition, change, or deletion of publications. At regular intervals, the bibliography is revised to incorporate and merge all new information with that in the previous bibliography edition.

### **References**

Specialized bibliographies and other supplemental items are listed in Part 1 under appropriate subject codes. Check the following items, and the abstracts that describe them:

*Bibliography of Data Processing Techniques*

(GF20-8172), subject code 00.

Bibliographies of application publications that pertain to specific industries (*Public Utilities, State and Local Government, Finance, Health, Insurance* and others), subject code 60 in "Licensed Application Programs."

*IBM Data Processing Glossary* (GC20-1699), and

*IBM Marketing Publications KWIC Indexes*, subject code 85 in the table of contents heading, "Other Supplementary Information."

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## Part 1. Subject Code Listings

### SUBJECT CODE DEFINITIONS – NUMERICAL INDEX

00 General System Information (basic System Summary, Bibliographies, all Configurators)  
01 Machine System (CPU, Storage, Channels, Console)  
02 Card Readers and/or Punches, Control Units  
03 Printers, Control Units  
04 OCR, MCR (Optical/Magnetic Character Readers), Control Units  
05 Magnetic Tape Units, Control Units  
06 Display Equipment  
07 DASD (Direct Access Storage Devices), Control Units  
08 Other I/O Devices, Control Units  
09 Teleprocessing Equipment  
10 Auxiliary Equipment (devices normally off-line)  
13 Special Features Information  
14 Custom Features and Supporting Programs  
15 Physical Planning Information  
20 Programming Systems – General Information  
21 Assembler  
22 APL  
23 BASIC  
24 COBOL  
25 FORTRAN  
26 ALGOL  
28 RPG  
29 PL/I  
30 Access Methods, Data Management, I/O Control Programs  
31 Support Programs (e.g., Link Edit, Loader)  
32 Utilities  
33 Sort/Merge  
34 *System* Planning, Generation, Installation, SMF; Storage or Performance Estimates, Release Guides  
35 Emulation, Simulation (catalogued by host system)  
36 Control Program (e.g., Supervisor, JCL, IPL, Job Management, Data Areas, Checkpoint/Restart)  
37 RAS (Reliability, Availability, Serviceability): Testing, Service Aids, Problem Determination  
38 Remote Job Entry (RJE, CRJE, RAX, CRBE,...)  
39 Time Sharing, Interactive Facilities (e.g., OS with TSO)  
40 System Operation (e.g., messages & codes)  
60 Industries – General (industry bibliographies, etc.)  
— Airlines (see Transportation)  
62 Consultants  
63 Distribution (e.g., apparel, food, agribusiness, hotels)  
64 Education, Libraries  
65 Engineering  
66 Exploratory  
67 Finance, Securities, Real Estate  
69 Government, Federal  
70 Government, State and Local  
71 Insurance  
72 Manufacturing  
73 Media  
74 Health  
75 Process (e.g., forest products, petroleum, paint, textiles)  
76 Public Utilities  
— Securities (see Finance)  
78 Transportation  
79 Cross-Industry (see also 80–83 for selections)  
80 Cross-Industry – Information Management  
81 Cross-Industry – Management, Planning, Project Control  
82 Cross-Industry – Mathematics and Science  
83 Cross-Industry – Simulation  
85 Data Processing – Introductory Manuals and Texts  
87 Education – Course Catalogs  
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95 EWS (Early Warning System)  
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99 SCP and Type I Program Listings

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**00 General System Information**

GA26-5917	IBM 1130 SYSTEM SUMMARY
GA26-5915	IBM 1130 CONFIGURATOR
**GA24-3090	IBM TELEPROCESSING SYSTEMS SUMMARY
**GA27-3018	IBM 2770 CONFIGURATORS (MANUAL)
GF20-8172	BIBLIOGRAPHY OF DATA PROCESSING TECHNIQUES

**01 Machine System**

GA26-5881	IBM 1130 FUNCTIONAL CHARACTERISTICS
GA26-5717	IBM 1130 OPERATING PROCEDURES
GX26-1588	DECIMAL/HEXADECIMAL FRACTION CONVERSION CHART
GX26-1587	DECIMAL/HEXADECIMAL INTEGER CONVERSION CHART
GX26-3566	IBM 1130 REFERENCE SUMMARY

**02 Card Readers and/or Punches, Control Units**

GA26-5892	IBM 2501 CARD READER, MODELS A1 AND A2 COMPONENT DESCRIPTION AND OPERATING PROCEDURES
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**03 Printers, Control Units**

GA24-3073	IBM 1403 PRINTER COMPONENT DESCRIPTION
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**04 OCR and MCR, Control Units**

GA21-9012	IBM 1231 OPTICAL MARK PAGE READER MODEL 1; IBM 1232 OPTICAL MARK PAGE READER MODEL 1 WITH IBM 534 CARD PUNCH MODEL 3: COMPONENT DESCRIPTION AND OPERATING PROCEDURES
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**06 Display Equipment**

GA27-2730	COMPONENT DESCRIPTION IBM 2285 DISPLAY COPIER
GA27-2723	IBM 1130 COMPUTING SYSTEM COMPONENT DESCRIPTION IBM 2250 DISPLAY UNIT MODEL 4

**07 DASD, Control Units**

GA26-5756	IBM DISK PACK AND CARTRIDGE HANDLING PROCEDURES
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**08 Other I/O Devices, Control Units**

GA26-5710	IBM 1627 PLOTTER
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**09 Teleprocessing Equipment**

**GA27-3004	GENERAL INFORMATION - BINARY SYNCHRONOUS COMMUNICATIONS
**GA21-9028	IBM 357/1030/2790 BADGE SPECIFICATIONS
**GA27-3013	SYSTEM COMPONENTS: IBM 2770 DATA COMMUNICATION SYSTEM
**GA27-3014	IBM 2770 SYSTEM SUMMARY
**GA27-3038	OPERATOR'S GUIDE: IBM 2770 DATA COMMUNICATION SYSTEM
**GA27-3005	IBM 2780 DATA TRANSMISSION TERMINAL - COMPONENT DESCRIPTION
**GA27-3058	IBM 3872 MODEM USER'S GUIDE
**GA27-3059	IBM 3872 MEDIUM-SPEED MODEM DIGEST - REFERENCE SUMMARY
**GA27-3062	IBM 3872 MODEM PROBLEM DETERMINATION CARD
**GA33-0002	IBM 3874 MODEM USER'S GUIDE
**GA36-0001	IBM 4872 MODEM MODEL 1
**GA36-0004	IBM 4872 MODEM MODELS 2 AND 3

**13 Special Features**

GA26-1575	IBM 1130 SPECIAL FEATURE DESCRIPTION - HIGH SPEED BINARY SYNCHRONOUS COMMUNICATIONS ADAPTER
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**14 Custom Features and Supporting Programs**

GA26-1579	IBM 1130 CUSTOM FEATURE DESCRIPTION-ATTACHMENT CHANNEL RPQ NUMBER 831552
GA33-3000	MULTIPLE TERMINAL COMMUNICATIONS ADAPTER FOR IBM 1133 MULTI- PLEX CONTROL ENCLOSURE: 1130 CUSTOM FEATURE DESCRIPTION, RPQ'S Y94121 THROUGH Y94128
GA26-3531	IBM 1130 TYPESETTING SYSTEM (RPQ)

**15 Physical Planning**

**GA24-3435	PLANNING AND INSTALLATION OF A DATA COMMUNICATION SYSTEM USING IBM LINE ADAPTERS
**GA27-3006	IBM REMOTE MULTIPLEXERS AND COMMUNICATIONS TERMINALS INSTALLATION MANUAL - PHYSICAL PLANNING

\*\*GX27-2900 IBM PHYSICAL PLANNING TEMPLATE: COMMUNICATIONS TERMINALS  
GA26-5914 IBM 1130 INSTALLATION MANUAL - PHYSICAL PLANNING  
GX26-5997 PHYSICAL PLANNING TEMPLATE IBM 1130 COMPUTING SYSTEM  
\*\*GA27-3019 IBM 2770 DATA COMMUNICATION SYSTEM  
INSTALLATION MANUAL--PHYSICAL PLANNING  
\*\*GX27-2909 PHYSICAL PLANNING TEMPLATE IBM 2770 DATA COMMUNICATION  
SYSTEM

**PROGRAMMING -- GENERAL (20-40)**

20 Programming Systems -- General Information

GC20-1630 CATALOG OF PROGRAMS FOR IBM 1130 COMPUTING SYSTEM AND IBM  
1800 DATA ACQUISITION AND CONTROL SYSTEM

25 FORTRAN

\*\*GX28-6383 REFERENCE CARD, FORTRAN IV  
GX28-6384 IBM FORTRAN IV REFERENCE CARD

**C/PT (IBM 1130 Card/Paper Tape Programming System) 20-40**

21 Assembler

GC26-5927 IBM 1130 ASSEMBLER LANGUAGE (1130 C/PT)

25 FORTRAN

GC26-3715 IBM 1130/1800 BASIC FORTRAN IV LANGUAGE

30 Access Methods, Data Management, I/O Control Programs

GC26-3755 IBM 1130/1800 PLOTTER SUBROUTINES  
GC26-3706 IBM 1130 SYNCHRONOUS COMMUNICATIONS, ADAPTER SUBROUTINES  
PROGRAM NUMBER 1130-LM-004

36 Control Program

GY26-3620 IBM 1130/1800 CARD/PAPER TAPE PROGRAMMING SYSTEMS, PROGRAM  
LOGIC MANUAL

40 System Operation

GC26-3629 IBM 1130 CARD/PAPER TAPE PROGRAMMING SYSTEM OPERATOR'S GUIDE

**DMS (IBM 1130 Disk Monitor System) 20-40**

20 General Information

GC26-3709 IBM 1130 DISK MONITOR SYSTEM, VERSION 2, SYSTEM INTRODUCTION

21 Assembler

GC26-3778 IBM 1130/1800 ASSEMBLER LANGUAGE (1130 DMS AND 1800 MPX)  
GX26-3780 IBM 1130/1800 ASSEMBLER-LANGUAGE STATEMENTS SUMMARY (1130  
DMS & 1800 MPX)

25 FORTRAN

GC26-3715 IBM 1130/1800 BASIC FORTRAN IV LANGUAGE  
GC27-6934 IBM 1130/2250 GRAPHIC SUBROUTINE PACKAGE FOR BASIC  
FORTRAN IV, PROGRAM NUMBER 1130-LM-008  
GY27-7174 IBM 1130/2250 GRAPHIC SUBROUTINE PACKAGE FOR BASIC  
FORTRAN IV - PROGRAM LOGIC MANUAL PROGRAM NUMBER 1130-LM-008  
GC27-6937 IBM SYSTEM/360 OPERATING SYSTEM AND 1130 DISK MONITOR  
SYSTEM, SYSTEM/360 - 1130 DATA TRANSMISSION FOR FORTRAN  
PROGRAM NUMBERS 360S-LM-542 AND 1130-LM-011

28 RPG

GC21-5002 IBM 1130 RPG LANGUAGE  
GY21-0010 IBM 1130 RPG PROGRAM LOGIC MANUAL, PROG. NO. 1130-RG-007

30 Access Methods, Data Management, I/O Control Programs

GC34-0015 IBM 1130 COMPUTING SYSTEM,  
MULTIPLE TERMINAL COMMUNICATIONS ADAPTER (MTCA),  
INPUT/OUTPUT CONTROL SYSTEM (IOCS) SUBROUTINES  
GY34-0002 1130 MTCA, IOCS SUBROUTINES PLM, PROG. NOS. 1130-OS-005, 006  
GC26-3755 IBM 1130/1800 PLOTTER SUBROUTINES  
GC26-5929 IBM SUBROUTINE LIBRARY (SRL), PROG. NOS. 1130-LM-001, 002  
GC26-3706 IBM 1130 SYNCHRONOUS COMMUNICATIONS, ADAPTER SUBROUTINES  
PROGRAM NUMBER 1130-LM-004



### 36 Control Program

GC26-3717	IBM 1130 DISK MONITOR SYSTEM, VERSION 2, PROGRAMMER'S AND OPERATOR'S GUIDE: PROG. NOS. 1130-OS-005, 006; 1130-CQ-009
GC26-3750	IBM 1130 DISK MONITOR SYSTEM (VERSION 1) REFERENCE MANUAL
GY26-3714	IBM 1130 DISK MONITOR SYSTEM, VERSION 2, PROGRAM LOGIC MANUAL, PROG. NOS. 1130-OS-005,006
GY26-3752	IBM 1130 DISK MONITOR SYSTEM (VERSION 1) PROGRAM LOGIC MANUAL, PROG. NOS. 1130-OS-001,002
GH20-0880	1130 DISTRIBUTED SYSTEM PROGRAM GENERAL INFORMATION MANUAL, PROGRAM NUMBER 1130-SV-002
GH20-1144	1130 DISTRIBUTED SYSTEM PROGRAM - PROGRAM REFERENCE MANUAL - PROGRAM NUMBER 1130-SV-002
GH20-1145	1130 DISTRIBUTED SYSTEM - OPERATIONS GUIDE PROGRAM NUMBER 1130-SV-002
GY20-0786	IBM 1130 DISTRIBUTED SYSTEM PROGRAM LOGIC MANUAL PROGRAM NUMBER 1130-SV-002

### 38 Remote Job Entry

GY30-1001	IBM 1130 REMOTE JOB ENTRY WORK STATION PROGRAM, PROGRAM LOGIC MANUAL PROGRAM NUMBER 1130-CQ-009
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## LICENSED PROGRAMS (20-40)

### 24 COBOL

GH20-4045	1130 COBOL PROGRAM PRODUCT SPECIFICATIONS PROGRAM NUMBER 5711-CB1
GH20-0799	1130 COBOL GENERAL INFORMATION MANUAL (PROGRAM NUMBER 5711-CB1)
SH20-0927	1130 COBOL OPERATIONS MANUAL, PROGRAM NUMBER 5711-CB1
SH20-0928	1130 COBOL PROGRAMMER'S GUIDE - PROGRAM NUMBER 5711-CB1
SH20-0816	1130 COBOL LANGUAGE SPECIFICATIONS MANUAL, PROG. NO. 5711-CB1
LY20-0639	1130 COBOL PROGRAM LOGIC MANUAL - PROGRAM NUMBER 5711-CB1 FEATURE CODE 8011
LYB0-0637	1130 COBOL ASSEMBLY LISTING MICROFICHE - PROGRAM PRODUCT 5711-CB1
**GX28-8195	IBM GUIDE TO AMERICAN NATIONAL STANDARD COBOL REFERENCE CARD

### 25 FORTRAN

**GB21-1318	1130 FORTRAN COMMERCIAL SUBROUTINES FOR DOS/VS FDP 5798-BCT FDP AVAILABILITY NOTICE
**SB21-1319	1130 FORTRAN COMMERCIAL SUBROUTINES FOR DOS/VS FDP 5798-BCT FDP PROGRAM DESCRIPTION/OPERATIONS MANUAL
GB21-0580	IBM 1130 FORTRAN TO SYSTEM/3 FORTRAN IV CONVERSION AID FOR SYSTEM/3 MODEL 10 DISK - AVAILABILITY NOTICE - FDP NUMBER 5798-AJY
SB21-0581	IBM 1130 FORTRAN TO SYSTEM/3 FORTRAN IV CONVERSION AID FOR SYSTEM/3 MODEL 10 DISK - PROGRAM DESCRIPTION/OPERATIONS MANUAL - FDP NUMBER 5798-AJY
LB21-0582	IBM 1130 FORTRAN TO SYSTEM/3 FORTRAN IV CONVERSION AID FOR SYSTEM/3 MODEL 10 DISK - SYSTEMS GUIDE - FDP NUMBER 5798-AJY

## LICENSED APPLICATION PROGRAMS (60-83)

### 60 Industries--General

GH20-0522	DISTRIBUTION INDUSTRIES BIBLIOGRAPHY
GC20-1747	EDUCATION INDUSTRY BIBLIOGRAPHY
**GC20-1769	FINANCE AND SECURITIES INDUSTRIES BIBLIOGRAPHY
GH20-0536	INSURANCE INDUSTRY BIBLIOGRAPHY
GH20-0531	MEDIA INDUSTRIES BIBLIOGRAPHY
GH20-0970	MEDICAL INDUSTRIES BIBLIOGRAPHY
GH20-0530	PUBLIC UTILITY INDUSTRIES BIBLIOGRAPHY
GC20-1740	STATE AND LOCAL GOVERNMENT INDUSTRIES BIBLIOGRAPHY

### 63 Distribution

GB21-0785	BILLING, ACCOUNTS RECEIVABLE, INVENTORY, AND SALES ANALYSIS FOR THE 1130 SUBMODEL 4: FDP'S 5798-ANM, 5798-ANW, 5798-ANP, AND 5798-ANR NOTICE
SB21-0789	ACCOUNTS RECEIVABLE FOR THE IBM 1130 (4K): FDP 5798-ANW DESCRIPTION/OPERATIONS
LB21-0790	ACCOUNTS RECEIVABLE FOR THE IBM 1130 (4K): FDP 5798-ANW SYSTEMS GUIDE, FEATURE NO. 8261
SB21-0786	BILLING FOR THE IBM 1130 (4K): FDP 5798-ANM DESCRIPTION/OPERATIONS
LB21-0787	BILLING FOR THE IBM 1130 (4K): FDP 5798-ANM SYSTEMS GUIDE, FEATURE NO. 8258

SB21-0792 INVENTORY ACCOUNTING FOR THE IBM 1130 (4K): FDP 5798-ANP  
DESCRIPTION/OPERATIONS  
LB21-0793 INVENTORY ACCOUNTING FOR THE IBM 1130 (4K): FDP 5798-ANP  
SYSTEMS GUIDE, FEATURE NO. 8259  
SB21-0795 SALES ANALYSIS FOR THE IBM 1130 (4K): FDP 5798-ANR  
DESCRIPTION/OPERATIONS  
LB21-0796 SALES ANALYSIS FOR THE IBM 1130 (4K): FDP 5798-ANR SYSTEMS  
GUIDE, FEATURE NO. 8260

#### 64 Education, Libraries

GH20-1132 EPIC BUDGET/FINANCE FINANCIAL ACCOUNTING SYSTEM FOR  
EDUCATIONAL INSTITUTIONS - PROGRAM PRODUCT GENERAL  
INFORMATION - PROGRAM NUMBER 5735-E93  
SH20-1252 EPIC: BUDGET/FINANCE OPERATIONS GUIDE, PROG. NO. 5735-E93  
SH20-1253 EPIC: BUDGET/FINANCE USER'S GUIDE - PROGRAM NUMBER 5735-E93  
GH20-4322 EPIC: BUDGET/FINANCE SPECIFICATIONS - PROGRAM NUMBER  
5735-E93  
LY20-0837 EPIC: BUDGET/FINANCE LOGIC MANUAL - PROGRAM NUMBER 5735-E93  
GH20-1129 EPIC SOCRATES STUDENT SCHEDULING SYSTEM FOR EDUCATIONAL  
INSTITUTIONS - GENERAL INFORMATION  
PROGRAM NUMBER 5735-E91  
SH20-1242 EPIC: SOCRATES (STUDENT SCHEDULING SYSTEM FOR EDUCATIONAL  
INSTITUTIONS) USER'S GUIDE - PROGRAM NUMBER 5735-E91  
SH20-1245 EPIC: SOCRATES STUDENT SCHEDULING SYSTEM FOR EDUCATIONAL  
INSTITUTIONS - OPERATIONS GUIDE PROG. NO. 5735-E91  
GH20-4317 EPIC SOCRATES STUDENT SCHEDULING SYSTEM  
SPECIFICATION SHEET - PROG. NO. 5735-E91  
LY20-0835 EPIC: SOCRATES, STUDENT SCHEDULING SYSTEM FOR EDUCATIONAL  
INSTITUTIONS: LOGIC MANUAL, PROG. PROD. 5735-E91

#### 65 Engineering

GH20-0983 ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP II) FOR THE IBM  
OPERATING SYSTEM AND 1130 COMPUTING SYSTEM: APPLICATION  
DESCRIPTION, PROG. NOS. 5734-EE1, 5711-EE1  
SH20-1015 ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP II) FOR THE IBM  
OPERATING SYSTEM AND 1130 COMPUTING SYSTEM  
PROGRAM DESCRIPTION MANUAL, PROG. NOS. 5734-EE1, 5711-EE1  
SH20-1026 ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP II) FOR THE IBM  
1130 COMPUTING SYSTEM: OPERATIONS MANUAL, PROG. NO. 5711-EE1  
GH20-4421 ELECTRONIC CIRCUIT ANALYSIS PROGRAM II - (ECAP II) FOR THE  
1130 SYSTEM: PROGRAM PRODUCT FUNCTIONAL DESCRIPTION,  
PROG. NO. 5711-EE1  
LY20-0692 ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP II) FOR THE IBM  
OPERATING SYSTEM AND 1130 COMPUTING SYSTEM - SYSTEM MANUAL  
FEATURE NUMBER 8095 - PROGRAM NUMBERS 5734-EE1, 5711-EE1

#### 72 Manufacturing

GH20-0975 1130 CONSTRUCTION COST CONTROL SYSTEM  
APPLICATION DESCRIPTION MANUAL - PROGRAM NUMBER 5711-M62  
SH20-1045 1130 CONSTRUCTION COST CONTROL SYSTEM OPERATIONS MANUAL  
PROGRAM NUMBER 5711-M62  
SH20-1046 1130 CONSTRUCTION COST CONTROL SYSTEM, 5711-M62, PROGRAM  
DESCRIPTION MANUAL  
GH20-4406 1130 CONSTRUCTION COST CONTROL SYSTEM - FUNCTIONAL  
DESCRIPTION PROGRAM PRODUCT 5711-M62  
LY20-0711 1130 CONSTRUCTION COST CONTROL SYSTEM 5711-M62  
SYSTEM MANUAL FEATURE NUMBER 8003  
GH20-0742 1130 CONSTRUCTION ESTIMATING: APPLICATION DESCRIPTION MANUAL  
PROG. NO. 5711-M61  
SH20-0797 1130 CONSTRUCTION ESTIMATING PROGRAM DESCRIPTION AND OPERA-  
TIONS MANUAL, PROG. NO. 5711-M61  
GH20-4405 1130 CONSTRUCTION ESTIMATING PROGRAM FUNCTIONAL DESCRIPTION  
PROGRAM NUMBER 5711-M61  
LY20-0557 1130 CONSTRUCTION ESTIMATING PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 5711-M61

#### 73 Media

GB21-0205 1130 COMPOSITION SYSTEM - FDP AVAILABILITY NOTICE, PROG. NO.  
5798-ADF  
SB21-0206 1130 COMPOSITION SYSTEM - PROGRAM DESCRIPTION/OPERATIONS  
MANUAL - PROGRAM NUMBER 5798-ADF  
LB21-0207 IBM 1130 COMPOSITION SYSTEM - SYSTEMS GUIDE  
FDP PROG. NO. 5798-ADF, FEATURE NO. 8069

75 Process (e.g. petroleum)

GH20-0546	1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CMAP): APPLICATION DESCRIPTION MANUAL, PROG. NO. 5711-P11
SH20-0687	1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CMAP) PROGRAM DESCRIPTION MANUAL - PROGRAM NUMBER 5711-P11
SH20-0688	1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CMAP) OPERATIONS MANUAL - 5711-P11
LY20-0468	IBM 1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CMAP) SYSTEM MANUAL - VOLUME I PROGRAM NUMBER 5711-P11 FEATURE CODE 8801
LY20-0469	IBM 1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CMAP) SYSTEM MANUAL - VOLUME II COMPILATION LISTINGS PROGRAM NUMBER 5711-P11 FEATURE CODE 8801
GB21-1083	COLOR MATCHING (DYE SELECTION AND FORMULATION) FDP 5798-AXL, AXK, AXN, AXP - NOTICE
SB21-1084	COLOR MATCHING (DYE SELECTION AND FORMULATION) FDP'S 5798-AXK, L, N, & P DESCRIPTION/OPERATIONS
LB21-1085	COLOR MATCHING (DYE SELECTION AND FORMULATION) FDP 5798-AXL, AXK, AXN, AXP - SYSTEMS GUIDE
GH20-0889	1130 DISTILLATION PROGRAM APPLICATION DESCRIPTION MANUAL PROGRAM NUMBER 5711-P71
SH20-1005	1130 DISTILLATION PROGRAM - PROGRAM DESCRIPTION AND OPERATIONS MANUAL - PROGRAM NUMBER 5711-P71
GH20-4404	1130 DISTILLATION FUNCTIONAL DESCRIPTION - PROGRAM NUMBER 5711-P71
LY20-0677	1130 DISTILLATION PROGRAM - SYSTEM MANUAL PROGRAM NUMBER 5711-P71 - FEATURE NUMBER 8013

78 Transportation

**SH20-1380	CUSTOMHOUSE BROKER DOCUMENT PROCESSING AND ACCOUNTING SYSTEM IUP 5796-AEW, DESCRIPTION/OPERATIONS
**G320-8096	CUSTOMHOUSE BROKER...IUP 5796-AEW NOTICE

81 Cross-Industry - Management, Planning, Project Control

GH20-0878	INTRODUCTION TO PROJECT CONTROL SYSTEM II/1130 (PCSII/1130) PROGRAM NUMBER 5711-XP1
SH20-0969	PROJECT CONTROL SYSTEM II/1130, PROGRAM DESCRIPTION AND OPERATIONS MANUAL PROGRAM NUMBER 5711-XP1
GH20-4403	PROJECT CONTROL SYSTEM II/1130 (PCS II/1130) FUNCTIONAL DESCRIPTION - PROGRAM NUMBER 5711-XP1
LY20-0659	PROJECT CONTROL SYSTEM II/1130 SYSTEM MANUAL, VOLUME 2, LISTINGS - PROGRAM NUMBER 5711-XP1, FEATURE NUMBER 8015
LY20-0662	PROJECT CONTROL SYSTEM II/1130, SYSTEM MANUAL, VOLUME 1 PROGRAM NUMBER 5711-XP1, FEATURE CODE 8014

82 Cross-Industry - Mathematics and Science

GH20-0562	LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) APPLICATION DESCRIPTION MANUAL (5711-C01)
SH20-0633	LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) PROGRAM DESCRIPTION MANUAL (5711-C01)
SH20-0637	LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130): OPERATIONS MANUAL PROG. NO. 5711-C01
GH20-4091	LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) FUNCTIONAL DESCRIPTION - PROGRAM PRODUCT 5711-C01
LY20-0438	LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) COMPILATION/ASSEMBLY LISTINGS MANUAL PROGRAM NUMBER 5711-C01
LY20-0445	LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) SYSTEM MANUAL PROGRAM NUMBER 5711-C01, FEATURE CODE 8806
GH12-5002	IBM 1130 AND 1800 SUBROUTINE LIBRARY-MATHEMATICS (SL-MATH) PPDO (PROGRAM PRODUCT DESIGN OBJECTIVES), PROG. NO. 5711-XM2
GH12-5103	IBM SYSTEM/360 AND SYSTEM/370, IBM 1130 AND 1800 SUBROUTINE LIBRARY-MATHEMATICS (SL-MATH) GENERAL INFORMATION MANUAL PROG. NOS. 5736-XM7, 5711-XM2
GH20-4145	IBM 1130 AND 1800 SUBROUTINE LIBRARY MATHEMATICS (SL-MATH) SPECIFICATIONS - PROGRAM NUMBER 5711-XM2

83 Cross-Industry -- Simulation

GH20-0848	INTRODUCTION TO THE 1130 CONTINUOUS SYSTEM MODELING PROGRAM II (CSMP II) PROGRAM NO. 5711-XS1
SH20-0905	1130 CSMP II PROGRAM DESCRIPTION AND OPERATIONS MANUAL PROGRAM NUMBER 5711-XS1
GH20-4092	1130 CONTINUOUS SYSTEM MODELING PROGRAM II FUNCTIONAL DESCRIPTION - PROGRAM PRODUCT 5711-XS1
LY20-0636	1130 CONTINUOUS SYSTEM MODELING PROGRAM II (CSMP II) SYSTEM MANUAL, PROGRAM NUMBER 5711-XS1, FEATURE CODE 8009

## TYPE II PROGRAMS (20-83)

Note: The following Type II program publications are available under SLSS by order number subscription only.

### 25 FORTRAN

GH20-0221	1130 COMMERCIAL SUBROUTINE PACKAGE APPLICATION DESCRIPTION VERSION 2 (1130-SE-25X)
GH20-0241	1130 COMMERCIAL SUBROUTINE PACKAGE (1130-SE-25X), VERSION 3 MOD. 1 - PROGRAM REFERENCE MANUAL
GH20-0520	1130 COMMERCIAL SUBROUTINE PACKAGE (1130-SE-25X) VERSION 3 APPLICATION DESCRIPTION

### 30 Access Methods, Data Management, I/O Control Programs

GH20-0235	1130 DATA PRESENTATION SYSTEM, VERSION 2, APPLICATION DESCRIPTION MANUAL, PROG. NO. 1130-CX-14X
GH20-0337	1130 DATA PRESENTATION SYSTEM (1130-CX-14X) VERSION 2 OPERATIONS GUIDE
GH20-0338	1130 DATA PRESENTATION SYSTEM (1130-CX-14X) VERSION 2 PROGRAM REFERENCE MANUAL
GY20-0089	1130 DATA PRESENTATION SYSTEM, VERSION 2: SYSTEM MANUAL VOLUME I - FLOWCHARTS AND NARRATIVES, PROG. NO. 1130-CX-14X
GY20-0436	1130 DATA PRESENTATION SYSTEM, VERSION 2 SYSTEM MANUAL VOLUME II - ASSEMBLY LISTINGS, PROG. NO. 1130-CX-14X
GH20-0535	PLAN GRAPHICS SUPPORT FOR THE IBM 2250 ON SYSTEM/360 (OS) OR IBM 1130 - APPLICATION DESCRIPTION MANUAL, PROG. NOS. 1130-CX-33X AND 360A-CX-34X
GH20-0614	PLAN GRAPHICS SUPPORT FOR THE IBM 2250 ON SYSTEM/360 (OS) OR IBM 1130 PROGRAM DESCRIPTION MANUAL PROGRAM NUMBERS 360A-CX-34X AND 1130-CX-33X
GH20-0616	PLAN GRAPHICS SUPPORT FOR THE IBM 2250 ON THE IBM 1130 OPERATIONS MANUAL PROGRAM NUMBER 1130-CX-33X
GY20-0395	PLAN GRAPHICS SUPPORT FOR THE IBM 2250 ON THE IBM 1130 - SYSTEM MANUAL, PROG. NO. 1130-CX-33X

### 31 Support Programs

GH20-0490	PROBLEM LANGUAGE ANALYZER (PLAN) APPLICATION DESCRIPTION PROGRAM NUMBERS 1130-CX-25X 360A-CX-26X 360A-CX-27X
GH20-0594	PROBLEM LANGUAGE ANALYZER (PLAN): PROGRAM DESCRIPTION MANUAL PROG. NOS. 1130-CX-25X AND 360A-CX-26X, -27X
GH20-0595	1130 PROBLEM LANGUAGE ANALYZER (PLAN) (1130-CX-25X) OPERATIONS MANUAL
GH20-0626	PROBLEM LANGUAGE ANALYZER (PLAN) USERS' INTRODUCTION PROGRAM NUMBERS 1130-CX-25X, 360A-CX-26X AND 360A-CX-27X
GH20-1066	PROBLEM LANGUAGE ANALYZER (PLAN) PROGRAM REFERENCE MANUAL PROGRAM NUMBERS 1130-CX-25X, 360A-CX-27X
GY20-0343	1130 PROBLEM LANGUAGE ANALYZER (PLAN): SYSTEM MANUAL VOLUME I - FLOWCHART NARRATIVES, PROG. NO. 1130-CX-25X
GY20-0344	1130 PROBLEM LANGUAGE ANALYZER (PLAN): SYSTEM MANUAL VOLUME II - FLOWCHARTS, PROG. NO. 1130-CX-25X

### 63 Distribution

GE20-0197	1130 ROUTE ACCOUNTING SYSTEM FOR DAIRIES AND BAKERIES - APPLICATION DESCRIPTION, PROG. NO. 1130-DX-01X
GH20-0328	1130 ROUTE ACCOUNTING FOR DAIRIES AND BAKERIES (1130-DX-01X) - USER'S MANUAL
GH20-0330	1130 ROUTE ACCOUNTING SYSTEM FOR DAIRIES AND BAKERIES (1130-DX-01X) - OPERATOR'S MANUAL
GY20-0078	1130 ROUTE ACCOUNTING FOR DAIRIES AND BAKERIES SYSTEM MANUAL PROGRAM NUMBER 1130-DX-01X

### 65 Engineering (see also 82 and 83 Cross-Industry)

GH20-0143	CIVIL ENGINEERING COORDINATE GEOMETRY (COGO) FOR IBM 1130 PROG NO. 1130-EC-02X - APPLICATION DESCRIPTION
GH20-0301	CIVIL ENGINEERING COORDINATE GEOMETRY (COGO) FOR IBM 1130, PROG. NO. 1130-EC-02X - USER'S MANUAL
GY20-0064	CIVIL ENGINEERING COORDINATE GEOMETRY (COGO) FOR IBM 1130 SYSTEM MANUAL - PROGRAM NUMBER 1130-EC-02X
GH20-0268	1130 MECHANISM DESIGN SYSTEM - GEARS AND SPRINGS, VERSION 2, APPLICATION DESCRIPTION MANUAL, PROG. NO. 1130-EM-01X
GH20-0365	1130 MECHANISM DESIGN SYSTEM - GEARS AND SPRINGS, VERSION 2, PROGRAM DESCRIPTION MANUAL, PROG. NO. 1130-EM-01X
GH20-0366	1130 MECHANISM DESIGN SYSTEM - GEARS AND SPRINGS, VERSION 2, OPERATIONS MANUAL, PROG. NO. 1130-EM-01X
GY20-0109	1130 MECHANISM DESIGN SYSTEM - GEARS AND SPRINGS, VERSION 2 SYSTEM MANUAL VOL. I - FLOWCHARTS & NARRATIVES (1130-EM-01X)
GH20-0617	MECHANISM DESIGN SYSTEM-KINEMATICS PROGRAM DESCRIPTION MANUAL PROGRAM NOS. 1130-EM-03X, 360A-EM-04X AND 360A-EM-05X

GH20-0618 MECHANISM DESIGN SYSTEM-KINEMATICS OPERATIONS MANUAL  
PROGRAM NOS. 1130-EM-03X, 360A-EM-04X AND 360A-EM-05X  
GY20-0396 1130 MECHANISM DESIGN SYSTEM - KINEMATICS: SYSTEM MANUAL  
VOLUME I - FLOWCHARTS AND FLOWCHART NARRATIVES  
PROGRAM NUMBER 1130-EM-03X  
GY20-0397 1130 MECHANISM DESIGN SYSTEM - KINEMATICS SYSTEM MANUAL  
VOLUME II - COMPILATION LISTINGS, PROG. NO. 1130-EM-03X  
GH20-0580 IBM 1130 RIGID FRAME SELECTION PROGRAM (RFSP) (1130-EC-09X):  
PROGRAM DESCRIPTION AND OPERATIONS MANUAL  
GH20-0598 RIGID FRAME SELECTION PROGRAM (RFSP): APPLICATION  
DESCRIPTION, PROG. NOS. 1130-EC-09X, 5734-EC1, 5736-EC1  
SH20-0612 RIGID FRAME SELECTION PROGRAM (RFSP) OPERATIONS MANUAL  
PROGRAM NUMBER 1130-EC-09X 5734-EC1 5736-EC1  
GY20-0316 RIGID FRAME SELECTION PROGRAM (RFSP): SYSTEM MANUAL VOLUME 1  
PROG. NOS. 1130-EC-09X, 5734-EC1, 5736-EC1  
GY20-0366 IBM 1130 RIGID FRAME SELECTION PROGRAM (RFSP)  
VOLUME 2 SYSTEM MANUAL PROGRAM NUMBER 1130-EC-09X  
GH20-0237 STRUCTURAL ENGINEERING SYSTEM SOLVER (STRESS) FOR THE  
IBM 1130, MODEL 2B (1130-EC-03X) VERSION 2, APPLICATION  
DESCRIPTION  
GH20-0340 STRUCTURAL ENGINEERING SYSTEM SOLVER (STRESS) FOR THE  
IBM 1130 (1130-EC-03X) VERSION 2, USER'S MANUAL  
GY20-0081 STRUCTURAL ENGINEERING SYSTEM SOLVER (STRESS) FOR THE  
IBM 1130, MODEL 2B VERSION 2 SYSTEM MANUAL  
PROGRAM NUMBER 1130-EC-03X

### 73 Media

GH20-0139 1130 TYPE COMPOSITION PROGRAM (1130-DP-04X),  
APPLICATION DESCRIPTION  
GH20-0287 1130 TYPE COMPOSITION PROGRAM (1130-DP-04X),  
PROGRAMMER'S MANUAL  
GH20-0288 1130 TYPE COMPOSITION PROGRAM (1130-DP-04X),  
OPERATOR'S MANUAL  
GY20-0040 1130 TYPE COMPOSITION PROGRAM SYSTEM MANUAL VOLUME I  
PROGRAM NUMBER 1130-DP-04X  
GY20-0041 1130 TYPE COMPOSITION PROGRAM SYSTEM MANUAL VOLUME II  
PROGRAM NUMBER 1130-DP-04X

### 74 Health

GY20-0216 IBM 1130 AUTOMATED CHEMISTRY PROGRAM (1130 ACP) FOR THE 1080  
DATA ACQUISITION SYSTEM (1130-UH-13X) - SYSTEM MANUAL

### 75 Process (e.g. petroleum)

GH20-0405 1130 CASING DESIGN PROGRAM (1130-MP-02X)  
APPLICATION DESCRIPTION  
GH20-0406 1130 CASING DESIGN PROGRAM (1130-MP-02X) -  
PROGRAMMER'S MANUAL  
GH20-0407 1130 CASING DESIGN PROGRAM (1130-MP-02X) OPERATOR'S MANUAL  
GY20-0047 1130 CASING DESIGN PROGRAM (1130-MP-02X) SYSTEM MANUAL  
GH20-0409 1130 DECLINE CURVE ANALYSIS PROGRAM (1130-MP-03X)  
APPLICATION DESCRIPTION  
GH20-0410 1130 DECLINE CURVE ANALYSIS PROGRAM (1130-MP-03X)  
PROGRAMMER'S MANUAL  
GH20-0411 1130 DECLINE CURVE ANALYSIS PROGRAM (1130-MP-03X)  
OPERATOR'S MANUAL  
GY20-0048 1130 DECLINE CURVE ANALYSIS PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-03X  
GH20-0457 1130 DIPMETER PROGRAM (1130-MP-15X) APPLICATION DESCRIPTION  
GH20-0458 1130 DIPMETER PROGRAM (1130-MP-15X) PROGRAMMER'S MANUAL  
GH20-0459 1130 DIPMETER PROGRAM (1130-MP-15X) OPERATOR'S MANUAL  
GY20-0060 1130 DIPMETER PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-15X  
GH20-0401 1130 ECONOMIC EVALUATION OF PETROLEUM PROJECTS PROGRAM  
(1130-MP-01X) APPLICATION DESCRIPTION  
GH20-0402 1130 ECONOMIC EVALUATION OF PETROLEUM PROJECTS PROGRAM  
(1130-MP-01X) PROGRAMMER'S MANUAL  
GH20-0403 1130 ECONOMIC EVALUATION OF PETROLEUM PROJECTS PROGRAM  
(1130-MP-01X) OPERATOR'S MANUAL  
GY20-0046 1130 ECONOMIC EVALUATION OF PETROLEUM PROJECTS PROGRAM  
SYSTEM MANUAL PROGRAM NUMBER 1130-MP-01X  
GH20-0425 1130 GAS DELIVERABILITY PROGRAM (1130-MP-07X)  
APPLICATION DESCRIPTION  
GH20-0426 1130 GAS DELIVERABILITY PROGRAM (1130-MP-07X)  
PROGRAMMER'S MANUAL  
GH20-0427 1130 GAS DELIVERABILITY PROGRAM (1130-MP-07X)  
OPERATOR'S MANUAL  
GY20-0052 1130 GAS DELIVERABILITY PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-07X  
GH20-0445 1130 GRAVITY AND MAGNETICS CONTINUATIONS DERIVATIVES AND  
RESIDUALS PROGRAM (1130-MP-12X) APPLICATION DESCRIPTION

GH20-0446	1130 GRAVITY AND MAGNETICS CONTINUATIONS DERIVATIVES AND RESIDUALS PROGRAM (1130-MP-12X) PROGRAMMER'S MANUAL
GH20-0447	1130 GRAVITY AND MAGNETICS CONTINUATIONS DERIVATIVES AND RESIDUALS PROGRAM (1130-MP-12X) OPERATOR'S MANUAL
GY20-0057	1130 GRAVITY AND MAGNETICS CONTINUATIONS DERIVATIVES AND RESIDUALS PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-12X
GH20-0429	1130 MULTI-STAGE FLASH CALCULATION PROGRAM (1130-MP-08X) APPLICATION DESCRIPTION
GH20-0430	1130 MULTI-STAGE FLASH CALCULATION PROGRAM (1130-MP-08X) PROGRAMMER'S MANUAL
GH20-0431	1130 MULTI-STAGE FLASH CALCULATION PROGRAM (1130-MP-08X) OPERATOR'S MANUAL
GY20-0053	1130 MULTI-STAGE FLASH CALCULATION PROGRAM SYSTEM MANUAL - PROGRAM NUMBER 1130-MP-08X
GH20-0453	1130 QUANTITATIVE LOG ANALYSIS PROGRAM (1130-MP-14X) APPLICATION DESCRIPTION
GH20-0454	1130 QUANTITATIVE LOG ANALYSIS PROGRAM (1130-MP-14X) PROGRAMMER'S MANUAL
GH20-0455	1130 QUANTITATIVE LOG ANALYSIS PROGRAM (1130-MP-14X) OPERATOR'S MANUAL
GY20-0059	1130 QUANTITATIVE LOG ANALYSIS PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-14X
GH20-0417	1130 SCHILTHUIS MATERIAL BALANCE PROGRAM (1130-MP-05X) APPLICATION DESCRIPTION
GH20-0418	1130 SCHILTHUIS MATERIAL BALANCE PROGRAM (1130-MP-05X) PROGRAMMER'S MANUAL
GH20-0419	1130 SCHILTHUIS MATERIAL BALANCE PROGRAM (1130-MP-05X) OPERATOR'S MANUAL
GY20-0050	1130 SCHILTHUIS MATERIAL BALANCE PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-05X
GH20-0441	1130 SYNTHETIC SEISMOGRAM PROGRAM (1130-MP-11X) APPLICATION DESCRIPTION
GH20-0442	1130 SYNTHETIC SEISMOGRAM PROGRAM (1130-MP-11X) PROGRAMMER'S MANUAL
GH20-0443	1130 SYNTHETIC SEISMOGRAM PROGRAM (1130-MP-11X) OPERATOR'S MANUAL
GY20-0056	1130 SYNTHETIC SEISMOGRAM PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-11X
GH20-0413	1130 TARNER MATERIAL BALANCE PROGRAM (1130-MP-04X) APPLICATION DESCRIPTION
GH20-0414	1130 TARNER MATERIAL BALANCE PROGRAM (1130-MP-04X) PROGRAMMER'S MANUAL
GH20-0415	1130 TARNER MATERIAL BALANCE PROGRAM (1130-MP-04X) OPERATOR'S MANUAL
GY20-0049	1130 TARNER MATERIAL BALANCE PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-04X
GH20-0449	1130 THEORETICAL GRAVITY OF A 3-D MASS PROGRAM (1130-MP-13X) APPLICATION DESCRIPTION
GH20-0450	1130 THEORETICAL GRAVITY OF A 3-D MASS PROGRAM (1130-MP-13X) PROGRAMMER'S MANUAL
GH20-0451	1130 THEORETICAL GRAVITY OF A 3-D MASS PROGRAM (1130-MP-13X) OPERATOR'S MANUAL
GY20-0058	1130 THEORETICAL GRAVITY OF A 3-D MASS PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-13X
GH20-0421	1130 TWO-DIMENSIONAL WATERFLOODING PROGRAM (1130-MP-06X) APPLICATION DESCRIPTION
GH20-0422	1130 TWO-DIMENSIONAL WATERFLOODING PROGRAM (1130-MP-06X) PROGRAMMER'S MANUAL
GH20-0423	1130 TWO-DIMENSIONAL WATERFLOODING PROGRAM (1130-MP-06X) OPERATOR'S MANUAL
GY20-0051	1130 TWO-DIMENSIONAL WATERFLOODING PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-06X
GH20-0433	1130 VELOCITY FUNCTIONS FROM TIME-DEPTH DATA PROGRAM (1130-MP-09X) APPLICATION DESCRIPTION
GH20-0434	1130 VELOCITY FUNCTIONS FROM TIME-DEPTH DATA PROGRAM (1130-MP-09X) PROGRAMMER'S MANUAL
GH20-0435	1130 VELOCITY FUNCTIONS FROM TIME-DEPTH DATA PROGRAM (1130-MP-09X) OPERATOR'S MANUAL
GY20-0054	1130 VELOCITY FUNCTIONS FROM TIME-DEPTH DATA PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-09X
GH20-0437	1130 WAVE-FRONT RAY-PATH DETERMINATION PROGRAM (1130-MP-10X) APPLICATION DESCRIPTION
GH20-0438	1130 WAVE-FRONT RAY-PATH DETERMINATION PROGRAM (1130-MP-10X) PROGRAMMER'S MANUAL
GH20-0439	1130 WAVE-FRONT RAY-PATH DETERMINATION PROGRAM (1130-MP-10X) OPERATOR'S MANUAL
GY20-0055	1130 WAVE-FRONT RAY-PATH DETERMINATION PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-10X

79 Cross-Industry (see also 81-83 for selections)

GH20-0333	1130 STATISTICAL SYSTEM (1130-CA-06X) USER'S MANUAL
GH20-0341	1130 STATISTICAL SYSTEM (1130-CA-06X) APPLICATION DESCRIPTION
GY20-0093	1130 STATISTICAL SYSTEM (1130-CA-06X) SYSTEM MANUAL

81 Cross-Industry - Management, Planning, Project Control

GH20-0342	1130 PROJECT CONTROL SYSTEM VERSION 2: PROGRAM DESCRIPTION MANUAL PROG. NO. 1130-CP-05X
GH20-0343	1130 PROJECT CONTROL SYSTEM VERSION 2: OPERATIONS MANUAL PROG. NO. 1130-CP-05X
GH20-0576	1130 PROJECT CONTROL SYSTEM VERSION 2 (1130-CP-05X) APPLICATION DESCRIPTION MANUAL
GY20-0091	1130 PROJECT CONTROL SYSTEM VERSION 2 SYSTEM MANUAL PROGRAM NUMBER 1130-CP-05X
GY20-0709	1130 PROJECT CONTROL SYSTEM VERSION 2, SYSTEM MANUAL: LISTINGS - PROGRAM NUMBER 1130-CP-05X

82 Cross-Industry - Mathematics and Science

GH20-0208	1800/1130 CONTROL OPTIMIZATION PROGRAM (COP/1800-1130) (1800-CC-01X) APPLICATION DESCRIPTION
GH20-0351	1800/1130 CONTROL OPTIMIZATION PROGRAM (COP/1800-1130) VERSION 2 (1800-CC-01X) PROGRAM DESCRIPTION AND OPERATIONS
GY20-0110	1800/1130 CONTROL OPTIMIZATION PROGRAM (COP/1800-1130) VERSION 2 (1800-CC-01X) - SYSTEM MANUAL
GH20-0238	1130 LINEAR PROGRAMMING-MATHEMATICAL OPTIMIZATION SUBROUTINE SYSTEM (1130 LP-MOSS): APPLICATION DESCRIPTION, PROG NO. 1130-CO-16X
GH20-0345	1130 LINEAR PROGRAMMING-MATHEMATICAL OPTIMIZATION SUBROUTINE SYSTEM (1130 LP-MOSS) (1130-CO-16X) PROGRAM REFERENCE MANUAL
GY20-0141	1130 LINEAR PROGRAMMING - MATHEMATICAL OPTIMIZATION SUBROUTINE SYSTEM (1130-LP-MOSS) (1130-CO-16X) SYSTEM MANUAL
GH20-0140	1130 NUMERICAL SURFACE TECHNIQUES AND CONTOUR MAP PLOTTING VERSION 2, APPLICATION DESCRIPTION, PROG. NOS. 1130-CX-11X, 1130-CX-38X
GH20-0356	1130 NUMERICAL SURFACE TECHNIQUES AND CONTOUR MAP PLOTTING VERSION 2 - OPERATOR'S MANUAL - PROG. NOS. 1130-CX-11X, 38X
GH20-0357	1130 NUMERICAL SURFACE TECHNIQUES AND CONTOUR MAP PLOTTING PROGRAMMER'S MANUAL, PROG. NO. 1130-CX-11X
GY20-0103	1130 NUMERICAL SURFACE TECHNIQUES AND CONTOUR MAP PLOTTING VERSION 2 SYSTEM MANUAL, PROG. NO. 1130-CX-11X, 38X
GH20-0225	1130 SCIENTIFIC SUBROUTINE PACKAGE (1130-CM-02X) APPLICATION DESCRIPTION MANUAL
GH20-0252	1130 SCIENTIFIC SUBROUTINE PACKAGE (1130-CM-02X) PROGRAMMER'S MANUAL

83 Cross-Industry-Simulation

GH20-0209	1130 CONTINUOUS SYSTEM MODELING PROGRAM (1130-CX-13X) APPLICATION DESCRIPTION
GH20-0282	1130 CONTINUOUS SYSTEM MODELING PROGRAM: PROGRAM DESCRIPTION AND OPERATIONS MANUAL, PROG. NO. 1130-CX-13X
GH20-0284	1130 CONTINUOUS SYSTEM MODELING PROGRAM (1130-CX-13X) SYSTEM MANUAL

OTHER SUPPLEMENTARY INFORMATION (85-99)

85 Data Processing--Introductory Manuals and Texts

GC20-1697	APL/1130 PRIMER
GC20-1690	IBM 1130 COMPUTING SYSTEM USER'S GUIDE
**GC20-1668	DATA COMMUNICATIONS PRIMER
GC20-1699	DATA PROCESSING GLOSSARY
GC20-1684	INTRODUCTION TO IBM DATA PROCESSING SYSTEMS
GB21-9949	IBM CUSTOMER INFORMATION FDP/IUP REFERENCE SUMMARY
**GB30-0521	KWIC INDEX TO GSD FIELD DEVELOPED PROGRAMS INSTALLED USER PROGRAMS
GC20-8078	FORM AND CARD DESIGN
GC20-1642	IBM 1130 FORTRAN PROGRAMMING TECHNIQUES
G310-0012	IBM WORLD TRADE MARKETING PUBLICATIONS KWIC INDEX
G320-1621	IBM MARKETING PUBLICATIONS KWIC INDEX
GC20-1618	NUMBER SYSTEMS - STUDENT TEXT

87 Education--Course Catalogs

G320-1244	CUSTOMER EDUCATION COURSE CATALOG
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G520-2326 IBM EDUCATION - A COURSE OF ACTION - SELF STUDY -  
COURSES AND STUDENT MATERIALS CATALOG

89 Installation Forms and Supplies

GX33-8000	1130/1800 ASSEMBLER CODING FORM
GX20-1734	1130 - 1800 BINARY CARD TEMPLATE
GX28-1464	COBOL CODING FORM
GX20-8020	FLOWCHARTING TEMPLATE
GX28-7327	FORTRAN CODING FORM
GX20-8096	GENERAL PURPOSE CARD PUNCHING/DATA RECORDING FORM
GX20-1761	MATHEMATICAL PROGRAMMING INPUT FORM SYSTEM/360 - 1130
GX24-6599	MULTIPLE CARD LAYOUT FORM
GX20-1702	PROPORTIONAL RECORD LAYOUT FORM
GX21-9092	RPG CONTROL CARD AND FILE DESCRIPTION SPECIFICATIONS FORM
GX21-9129	RPG DEBUGGING TEMPLATE
GX21-9095	RPG INDICATOR SUMMARY FORM
GX20-1816	150/10/6 PRINT CHART

95 EWS (Early Warning System)

Note: EWS, published on microfiche, contains information useful in program support and diagnosis. Automatic updating is available through SLSS (order-number subscription only).

S2C0-0151	1130/1800 EARLY WARNING MICROFICHE
S2C0-0301	MICROFICHE EARLY WARNING - PROGRAM PRODUCTS, CSP AND SCP

99 Type I Program Listings (microfiche)

GJD1-3040	MICROFICHE - SOURCE LISTING IBM 1130 DISK MONITOR PROGRAM (VERSION 2) 1130-OS-005
GYB0-0791	MICROFICHE LISTINGS FOR 1130 DISTRIBUTED SYSTEM PROGRAM PROGRAM NUMBER 1130-SV-002
GJD1-1789	1130 REPORT PROGRAM GENERATOR MICROFICHE LISTING PROGRAM NUMBER 1130-RG-007



## Part 2. Abstracts

GA21

GA26

GA21-9012

**IBM 1231 OPTICAL MARK PAGE READER MODEL 1; IBM 1232 OPTICAL MARK PAGE READER MODEL 1 WITH IBM 534 CARD PUNCH MODEL 3: COMPONENT DESCRIPTION AND OPERATING PROCEDURES**

This publication describes the functions, controls, principles of operation, data flow, and programming for the IBM 1231 and 1232 Optical Mark Page Readers. Special features available are explained. Also included is a section on the IBM 534 Model 3 Card Punch.

The manuals IBM 1130 BIBLIOGRAPHY (A25-9616), IBM 1401 AND 1460 BIBLIOGRAPHY (A24-1495), and IBM 1440 AND 1260 BIBLIOGRAPHY (A24-3005) contain lists of manuals with information related to the operation of the IBM 1231 attached to the 1130, 1401 and 1460, and 1440, respectively. Information about planning for the installation of an IBM 1232 is available in INSTALLATION MANUAL--PHYSICAL PLANNING, UNIT RECORD DATA PROCESSING EQUIPMENT (C24-1037). Similar installation information for the IBM 1231 is available in the installation manual for the system to which the 1231 is to be attached (see the bibliography for that system for the manual number).

Systems Reference Library Manual, 60 pages

GA24-3073

**IBM 1403 PRINTER COMPONENT DESCRIPTION**

This reference publication for system planners, programmers, and operators describes the functions and operations of the IBM 1403 Printer. Special features available are described; timing information is presented; and print-quality requirements are set forth. The reader should be familiar, within his field of responsibility, with the system to which this printer is attached. For system and programming information, refer to publications listed in the bibliography for the system.

Manual, 8-1/2 x 11 inches, 56 pages

GA24-3089

**SUPPLEMENTAL BIBLIOGRAPHY: TELEPROCESSING/DATA COLLECTION**

This is primarily a supplement to the IBM data processing system bibliographies. It lists and describes publications on that teleprocessing and data collection equipment which is used independently or with several systems.

Publications on TP hardware used with only one data processing system are in the bibliography for that system. Likewise, publications on a TP program written to run on a single data processing system are in the bibliography for that system. This supplement lists, and should be used with, each system bibliography that may be associated.

Planning, installation, programming, and operator's publications are listed. Titles, order numbers, current status, Technical Newsletter numbers, and an abstract of each listed item are included in this regularly updated supplemental bibliography.

Bibliography, 24 pages

GA26-1575

**IBM 1130 SPECIAL FEATURE DESCRIPTION - HIGH SPEED BINARY SYNCHRONOUS COMMUNICATIONS ADAPTER**

This manual describes the operation and programming of the IBM high speed binary synchronous communications adapter as it relates to the 1130 system. A general description of the channel and information concerning the machine interface also included.

Systems Reference Library Manual, 28 pages

GA26-1579

**IBM 1130 CUSTOM FEATURE DESCRIPTION-ATTACHMENT CHANNEL RQ NUMBER 831552**

This manual contains programming and packaging information for the IBM 1130 attachment channel (RPQ). Channel operation and I/O operations associated with the attachment channel are described in detail. The information in this manual is not oriented to any particular control unit or I/O device that may attach to the channel.

Systems Reference Library Manual, 30 pages

GA26-3531

**IBM 1130 TYPESETTING SYSTEM (RPQ)**

This publication describes the IBM 1130 Typesetting System. The 1130 Typesetting System automates the hyphenation and justification functions of the printing and publishing industry. The IBM 1130 Computing System is described briefly, and the features and operations that comprise the 1130 Typesetting System are described in more detail.

Systems Reference Library Manual, 32 pages

GA26-5710

**IBM 1627 PLOTTER**

This publication describes the 1627 Plotter, Models 1 and 2. The 1627, in conjunction with the 1626 Plotter Control Unit, is capable of providing fully annotated graphs as an on-line function of a 1620 or 1710 System.

Manual, 12 pages

GA26-5717

**IBM 1130 OPERATING PROCEDURES**

This is a guide to the operation of the 1130 Computing System. It covers in detail the usual duties of an operator of an 1130 System when operating 1130 input/output devices and when performing certain functions with the 1131 console control panel. No specific programming system is assumed.

This publication describes the control keys, indicator lights, special features, setup procedures, restart procedures, and principles of operation of all input/output devices available for attachment to the 1130 system. Pictorial illustrations are included throughout the text to clarify procedures, and a glossary is presented in the appendix to clarify terminology.

Systems Reference Library Manual, 100 pages

GA26-5756

**IBM DISK PACK AND CARTRIDGE HANDLING PROCEDURES**

This manual is a guide for handling IBM Disk Packs and cartridges. Included are procedures for shipping and receiving, installation and removal, labeling of disks and cartridges and general operating procedures.

The information contained in this manual applies to IBM 1316, 2316, and 3336 Disk Packs, and 2315 Disk cartridges.

Manual, 16 pages

GA26-5881

**IBM 1130 FUNCTIONAL CHARACTERISTICS**

This reference manual contains CPU and I/O programming information, as well as related capacity and speed data for the IBM 1130 Computing System. Specifically, this manual contains descriptions of:

- CPU functional characteristics
- CPU instructions
- Input/output interrupts
- Console functions
- Input/output devices
- Storage access channel
- Synchronous communications adapter
- Overlapped input/output and throughput considerations
- Character codes

The reader of this manual should have successfully completed, as a minimum background, a basic introductory course to computers, including flowcharting and I/O unit characteristics. In addition, he should be familiar with a programming language, preferably the assembler language. The section of this manual on the synchronous communications adapter requires that the reader be familiar with communications concepts and terminology (e.g., point-to-point, STR, half-duplex).

Related Systems Reference Library publications for the 1130 Computing System are abstracted and referenced by form number in the IBM 1130 BIBLIOGRAPHY, Order No. GA26-5916.

System Reference Library Manual, 208 pages

GA26-5892

**IBM 2501 CARD READER, MODELS A1 AND A2 COMPONENT DESCRIPTION AND OPERATING PROCEDURES**

The operating principles and features of the IBM 2501 Models A1 and A2 as used with System/360 Model 20 Data Processing System or with the IBM 1130 Computing System are described in this publication. Descriptions of keys, lights, program indicators, program instructions, and machine timings are included. Operator procedures are also covered.

A knowledge of the information contained in the Functional Characteristics manual for the system being used is assumed for a complete understanding of this publication.

Systems Reference Library Manual, 16 pages

GA26-5914

**IBM 1130 INSTALLATION MANUAL - PHYSICAL PLANNING**

This publication contains physical planning information for the installation of an 1130 system. Included are dimensions, weights, cable locations and lengths, service clearances, and other necessary physical information for each unit of the system. Environmental and electrical requirements are also included. Photographs and drawings are used throughout the text, and a summary table of physical planning specifications is provided.

Systems Reference Library Manual, 34 pages

GA26-5915

**IBM 1130 CONFIGURATOR**

This two-page publication contains a schematic drawing of the IBM 1130 Computing System, showing the additional units and special features and their respective prerequisites.

Configurator Sheet, 8 1/2 x 11, 1 side

GA26-5917

**IBM 1130 SYSTEM SUMMARY**

The System Summary presents a brief introduction to the IBM 1130 Computing System, including system concepts, components, and programming systems. Intended as a general, overall picture of the 1130, the manual helps the reader

gain a basic understanding of the system and its use.  
Systems Reference Library Bulletin, 28 pages

## GA27-2723

IBM 1130 COMPUTING SYSTEM COMPONENT DESCRIPTIONIBM 2250 DISPLAY UNIT MODEL 4

This publication contains detailed information about IBM 2250 Display Unit Model 4 programming, operations, and special features. The material is presented with the assumption that the reader has read the IBM 1130 FUNCTIONAL CHARACTERISTICS, Form A26-5861.

The 2250-4 is a programmable display unit that attaches to the 1130 via a storage access channel. It can display lines, points, and characters, under control of a display program in 1130 main storage. Character generation is a program function, giving the user complete flexibility in the generation and use of character sets. Storage addressing and display program decoding and execution are performed by the 2250. A fiberoptic light pen, in conjunction with the display program and the logical capabilities of the 2250, enables the performance of computer-aided graphic design operations by the 2250 operator. Two special features, the alphanumeric keyboard and the programmed function keyboard, facilitate (1) message entry and editing by the 2250 operator and (2) communication between the 2250 operator and the CPU program. Systems Reference Library Manual, 44 pages

## GA27-2730

COMPONENT DESCRIPTION IBM 2285 DISPLAY COPIER

This publication presents a functional description of, and operator procedures for, the IBM 2285 Display Copier. Each 2285 attaches directly to an IBM 2250 Display Unit Model 1, 3, or 4 that is equipped with an attachment feature. The 2285 provides an 8-1/2-by-11-inch paper copy output of the associated 2250 display upon initiation by the 2250 operator. The 2285 obtains analog signals and power from the 2250 to which it is attached and requires no programming. The following publications may be of interest to the reader:

IBM SYSTEM/360 COMPONENT DESCRIPTION: IBM 2250 DISPLAY Unit Model 1, Order Number GA27-2701

IBM SYSTEM/360 COMPONENT DESCRIPTION: IBM 2250 DISPLAY UNIT MODEL 3, IBM 2840 DISPLAY CONTROL MODEL 2, Order Number GA27-2721

IBM 1130 SYSTEM COMPONENT DESCRIPTION: IBM 2250 DISPLAY Unit Model 4, Order Number GA27-2723.  
Systems Reference Library Manual, 8 pages

## GA33-3000

MULTIPLE TERMINAL COMMUNICATIONS ADAPTER FOR IBM 1133 MULTIPLEX CONTROL ENCLOSURE: 1130 CUSTOM FEATURE DESCRIPTION, RPO'S Y94121 THROUGH Y94128

This publication provides basic information on the Multiple Terminal Communications Adapter (MTCA), RPO's Y94121 through Y94128, for the IBM 1133 Multiplex Control Enclosure. The major subjects described are MTCA facilities, programming requirements, equipment arrangement, and IBM 1130 Computing System prerequisites.

It is assumed that the reader is familiar with communication terminals, communications facilities, and with the 1130 Computing System.  
Systems Reference Library Manual, 34 pages

## GB21-0205

1130 COMPOSITION SYSTEM - FDP AVAILABILITY NOTICE, PROG. NO. 5798-ADF

The industry trend to have both Hot Metal and Cold Type capability available in one production environment has created the demand for a unified system. One method of mark-up and one method of keying inherent in a unified system has important advantages in training personnel and easing the transition to Cold-Type composition.

High quality typesetting for the commercial printer, maintenance of classified advertising for newspapers, and text editing capability for both industries have become a necessity for any text setting system. IBM has created an entirely new system to address these requirements.

The 1130 Composition System is designed to meet the needs of both the newspaper and commercial printing industries. The system provides for high quality typesetting for both Hot Metal and Cold Type as well as a classified subsystem.

Significant features of the 1130 Composition System include the ability to store composition on disk for editing and the ability to provide data for a wide range of photo-composers.

Field Developed Program Availability Notice, 6 pages

## SB21-0206

1130 COMPOSITION SYSTEM - PROGRAM DESCRIPTION/OPERATIONS MANUAL - PROGRAM NUMBER 5798-ADF

This manual describes the capabilities of the system and the programs. Discussion of design assumptions and potential modification areas are included. Record and file layouts are described, and primary processing procedures specified. This manual is both a system description and an installation and operations reference document.

This program accepts raw copy with instruction on how

the copy is to appear on the output of a text editing device. The program hyphenates, justifies, and formats the text. The system allows for the final output of copy on a text setting device. The classified ad section allows the user to maintain, update, compose, and report on the classified section of his paper on a daily basis.  
Field Developed Program - Program Description/Operations Manual, 292 pages

## LB21-0207

IBM 1130 COMPOSITION SYSTEM - SYSTEMS GUIDEFDP PROG. NO. 5798-ADF, FEATURE NO. 8069

This "User's Manual" is for the Systems Analyst, Programmer, and Operator during the Systems Test and Daily Operations of the program. It also contains programmer notes to assist in making minor alterations.

This program accepts raw copy with instruction on how the copy is to appear on the output of a text editing device. The program hyphenates, justifies, and formats the text. The system allows for the final output of copy on a text setting device. The classified ad section allows the user to maintain, update, compose, and report on the classified section of his paper on a daily basis.  
Field Developed Program - Systems Guide, 108 pages

## GB21-0580

IBM 1130 FORTRAN TO SYSTEM/3 FORTRAN IV CONVERSION AID FOR SYSTEM/3 MODEL 10 DISK - AVAILABILITY NOTICE - FDP NUMBER 5798-AJY

This 4 page document describes the purpose and highlights of IBM 1130 FORTRAN to System/3 FORTRAN IV Conversion Aid for the System/3 Model 10 Disk.

Written in FORTRAN IV, this program provides a fast and convenient method of converting IBM 1130 FORTRAN source to System/3 FORTRAN IV source. The program accepts 80-column 1130 FORTRAN source plus simple control cards that may be used if default conditions do not apply. Output will be 96-column cards including System/3 FORTRAN compile-time options and the converted source program. Input and/or output may be listed at the user's option. This program is written in FORTRAN IV and runs on a 32K Disk System.

This Availability Notice contains complete ordering instructions for the Field Developed Program and all its related documentation, for management and data processing personnel who are prospective users of the program and others who require information concerning it.  
Notice, 4 pages

## SB21-0581

IBM 1130 FORTRAN TO SYSTEM/3 FORTRAN IV CONVERSION AID FOR SYSTEM/3 MODEL 10 DISK - PROGRAM DESCRIPTION/OPERATIONS MANUAL - FDP NUMBER 5798-AJY

This 61 page document describes the capabilities of the FDP and the programs of the IBM 1130 FORTRAN to System/3 FORTRAN IV Conversion Aid.

Written in FORTRAN IV, this program provides a fast and convenient method of converting IBM 1130 FORTRAN source to System/3 FORTRAN IV source. The program accepts 80-column 1130 FORTRAN source plus simple control cards that may be used if default conditions do not apply. Output will be 96-column cards including System/3 FORTRAN compile-time options and the converted source program. Input and/or output may be listed at the user's option. This program is written in FORTRAN IV and runs on a 32K Disk System.

This Program Description/Operations Manual provides the user with sufficient information to understand, install and successfully use the program.  
Manual, 61 pages

## LB21-0582

IBM 1130 FORTRAN TO SYSTEM/3 FORTRAN IV CONVERSION AID FOR SYSTEM/3 MODEL 10 DISK - SYSTEMS GUIDE - FDP NUMBER 5798-AJY

This 11 page document describes the steps necessary to modify the IBM 1130 FORTRAN to System/3 FORTRAN IV Conversion Aid.

Written in FORTRAN IV, this program provides a fast and convenient method of converting IBM 1130 FORTRAN source to System/3 FORTRAN IV source. The program accepts 80-column 1130 FORTRAN source plus simple control cards that may be used if default conditions do not apply. Output will be 96-column cards including System/3 FORTRAN compile-time options and the converted source program. Input and/or output may be listed at the user's option. This program is written in FORTRAN IV and runs on a 32K Disk System.

This systems guide provides the Systems Analyst with the necessary information on the design, logic and coding of the system to enable him to make modifications, diagnose program errors and perform program maintenance.  
Guide, 11 pages

## GB21-0785

BILLING ACCOUNTS RECEIVABLE INVENTORY, AND SALES ANALYSIS FOR THE 1130 SUBMODEL 4: FDP'S 5798-ANM, 5798-ANW, 5798-ANP, AND 5798-ANR NOTICE

The world of modern business has seen a tremendous increase in paperwork, creating a host of problems. Lost or late receivables, incorrect invoices, increasing clerical work, rising labor costs, all cause the profit percentage to

decrease. To maintain a competitive edge, an effective approach consists of the IBM 1130 Billing, Accounts Receivable, Inventory Accounting, and Sales Analysis programs to reduce excess inventories, reorder stock before sales are lost, collect overdue bills more effectively, yet maintain quality customer service.

The packages provide a low cost operator oriented accounting system designed as a series of modules. A simple basic design is used to make conversion to a computer system easier than ever. The integrated set of programs can be implemented without modification providing accurate reporting in minimum time. The programs produce: an invoice edit, invoices, and invoice register, a cash receipts edit, a daily A/R transaction register, an aged trial balance, a customer statement, an inventory transaction register, an inventory stock status, and two sales analysis reports. Beyond these basic capabilities, the system design is ideally suited for additional individual requirements. Flyer, 4 pages

SB21-0786

\*N

BILLING FOR THE IBM 1130 (4K): FDP 5798-ANM  
DESCRIPTION/OPERATIONS

This manual describes the capabilities of the system and the programs. Discussion of design assumptions and potential modification areas are included. Record and file layouts are described and primary processing procedures specified. This manual is both a system description and an installation and operations reference document. Manual, 97 pages

LB21-0787

\*N

BILLING FOR THE IBM 1130 (4K): FDP 5798-ANM SYSTEMS GUIDE,  
FEATURE NO. 8256

This "User's Manual" is for the Systems Analyst, Programmer and Operator during the Systems Test and daily operations of the programs. It also contains programmer notes to assist in making minor alterations. Manual, 37 pages

SB21-0789

\*N

ACCOUNTS RECEIVABLE FOR THE IBM 1130 (4K): FDP 5798-ANW  
DESCRIPTION/OPERATIONS

This manual describes the capabilities of the system and the programs. Discussion of design assumptions and potential modification areas are included. Record and file layouts are described and primary processing procedures specified. This manual is both a system description and an installation and operations reference document. Manual, 79 pages

LB21-0790

\*N

ACCOUNTS RECEIVABLE FOR THE IBM 1130 (4K): FDP 5798-ANW  
SYSTEMS GUIDE, FEATURE NO. 8261

This "User's Manual" is for the Systems Analyst, Programmer and Operator during the Systems Test and daily operations of the programs. It also contains programmer notes to assist in making minor alterations. Manual, 23 pages

SB21-0792

\*N

INVENTORY ACCOUNTING FOR THE IBM 1130 (4K): FDP 5798-ANP  
DESCRIPTION/OPERATIONS

This manual describes the capabilities of the system and the programs. Discussion of design assumptions and potential modification areas are included. Record and file layouts are described and primary processing procedures specified. This manual is both a system description and an installation and operations reference document. Manual, 56 pages

LB21-0793

\*N

INVENTORY ACCOUNTING FOR THE IBM 1130 (4K): FDP 5798-ANP  
SYSTEMS GUIDE, FEATURE NO. 8259

This "User's Manual" is for the Systems Analyst, Programmer and Operator during the Systems Test and daily operations of the programs. It also contains programmer notes to assist in making minor alterations. Manual, 24 pages

SB21-0795

\*N

SALES ANALYSIS FOR THE IBM 1130 (4K): FDP 5798-ANR  
DESCRIPTION/OPERATIONS

This manual describes the capabilities of the system and the programs. Discussion of design assumptions and potential modification areas are included. Record and file layouts are described and primary processing procedures specified. This manual is both a system description and an installation and operations reference document. Manual, 30 pages

LB21-0796

\*N

SALES ANALYSIS FOR THE IBM 1130 (4K): FDP 5798-ANR SYSTEMS  
GUIDE, FEATURE NO. 8260

This "User's Manual" is for the Systems Analyst, Programmer and Operator during the Systems Test and daily operations of

the programs. It also contains programmer notes to assist in making minor alterations. Manual, 9 pages

GB21-1083

\*N

COLOR MATCHING (DYE SELECTION AND FORMULATION)  
FDP 5798-AXL, AXK, AXN, AXP - NOTICE

This 4 page document describes the purpose and highlights of the Color Matching (Dye Selection and Formulation) FDPs. These programs handle dye selection and formulation to match colored samples on textile materials in the laboratory. The program can examine all 3 or 4 dye combinations of dyes from a list of candidates to match a given shade and list the resulting formulas in cost and/or best match sequence. The latest color theory and experience will be employed where applicable. Several new correction and production add routines are included, along with a program to assist in multiple fiber blends.

The resultant FDP will offer operational and functional enhancements over the Type III Color Match Program.

This Availability Notice contains complete ordering information for the Field Developed Program and all its related documentation, for management and data processing personnel who are perspective users of the program and others who require information concerning it. Availability Notice, 4 pages

SB21-1084

\*N

COLOR MATCHING (DYE SELECTION AND FORMULATION)  
FDP'S 5798-AXK, L, N, & P DESCRIPTION/OPERATIONS

This 153 page document describes the capabilities of the FDPs and the programs of the Color Matching (Dye Selection and Formulation) FDPs. These programs handle dye selection and formulation to match colored samples on textile materials in the laboratory. The program can examine all 3 or 4 dye combinations of dyes from a list of candidates in cost and/or best match sequence. The latest color theory and experience will be employed where applicable. Several new correction and production add routines are included, along with a program to assist in multiple fiber blends.

The resultant FDP will offer operational and functional enhancements over the Type III Color Match Program. Manual, 153 pages

LB21-1085

\*N

COLOR MATCHING (DYE SELECTION AND FORMULATION)  
FDP 5798-AXL, AXK, AXN, AXP - SYSTEMS GUIDE

This 71 page document describes the steps necessary to modify the Color Matching (Dye Selection and Formulation) FDPs. These programs handle dye selection and formulation to match colored samples on textile materials in the laboratory. The program can examine all 3 or 4 dye combinations of dyes from a list of candidates to match a given shade and list the resulting formulas in cost and/or best match sequence. The latest color theory and experience will be employed where applicable. Several new correction and production add routines are included, along with a program to assist in multiple fiber blends.

The resultant FDP will offer operational and functional enhancements over the Type III Color Match Program.

This systems guide provides the Systems Analyst with the necessary information on the design, logic and coding of the system to enable him to make modifications, diagnose program errors and perform program maintenance. Systems Guide, 71 pages

GB21-9949

\*N

CUSTOMER FDP/IUP POCKET INFORMATION BROCHURE

This information brochure is intended for customer consumption and reflects the inventory of all available FDP's and IUP's. It contains all program numbers, prices, and all general informational and promotional manuals available to our customers. Reference Card

GC20-1618

NUMBER SYSTEMS - STUDENT TEXT

This IBM student text on number systems presents a brief review of the principles of positional notation, as applied to the binary and hexadecimal systems of notation. The publication covers the operations of binary and hexadecimal arithmetic, decimal-binary - hexadecimal base conversion, and the principles of base and base-minus-one complementation. Student Text, 32 pages

GC20-1630

CATALOG OF PROGRAMS FOR IBM 1130 COMPUTING SYSTEM AND IBM  
1800 DATA ACQUISITION AND CONTROL SYSTEM

This Catalog contains a complete listing of all Program Products and Type I, II, III, IV, and prior use 1130 and 1800 programs available from the Program Information Department, 40 Saw Mill River Road, Hawthorne, New York 10532.

Instructions for ordering Program Products can be obtained from your local IBM Branch Office. Instructions for ordering Type I, II, III, IV and See BOM Marketing Activity and Program Information section,

Ordering Programs from PID subsection, as updated by BMR  
 DE 203, ZZ39-4700-0, 4/1/72.  
 Manual, 132 pages

GC20-1642

IBM 1130 FORTRAN PROGRAMMING TECHNIQUES

This manual contains an elementary analysis of 1130 FORTRAN object programs and discusses some specific FORTRAN programming techniques for writing more efficient programs. The information contained in this manual is primarily intended for the beginning programmer as an aid to achieving improved 1130 system performance.

Data Processing Techniques Manual, 20 pages

GC20-1684

INTRODUCTION TO IBM DATA PROCESSING SYSTEMS

This manual presents concepts and principals essential to a basic knowledge of computers. It is designed for use in training programs that serve as prerequisites for a detailed study of an IBM system. Covered in general terms are topics such as Data Representation, Storage Devices, CPW Functions, I/O Devices, Stored Program Principles, Programming Systems, Operating Systems, Conversion, and Procedural Controls. Reference to specific Systems is made to illustrate general principles.

Manual, 112 pages

GC20-1690

IBM 1130 COMPUTING SYSTEM USER'S GUIDE

This manual, covering a wide range of subjects that are of interest to 1130 customer personnel, is designed for insertion in a workbook along with user-generated materials. It deals with the steps to be considered in any successful installation program: preinstallation planning, documenting current applications, design of new applications, conversion, program development, testing, and program documentation.

Additional topics discussed include the 1130 system, the 1130 Monitor, Job Management, Disk Management, Core Management, File Organization, Disk Data Storage, FORTRAN and the Commercial Subroutine Package, Sorting and System Evaluation - Performance.

It is suggested that the User's Guide be placed in a binder and that dividers be inserted before the various sections. The resulting workbook becomes the single major source of installation guidance when you include your own data processing policies, standards, and control forms.

Systems Techniques Manual, 400 pages

GC20-1697

APL/1130 PRIMER

This manual provides an introduction to the APL/1130 system and to the APL programming language. It covers the mechanics of using the system and the writing of effective programs to cover a wide range of applications.

Student Text

GC20-1699

DATA PROCESSING GLOSSARY

This glossary contains over 2,000 definitions of terms in the data processing field. It contains definitions from:

1. The American National Standard Vocabulary for Information Processing, published by the American National Standards Institute, Inc. (ANSI).
2. The proposed American National Standard Vocabulary.
3. The IBM Data Communications Glossary (GC20-1666).
4. The IBM Glossary of Information Processing.

Manual, 136 pages

GC20-1740

STATE AND LOCAL GOVERNMENT INDUSTRIES BIBLIOGRAPHY

The purpose of this bibliography and the associated classification system is to list and categorize IBM application publications that are pertinent to the state and local government industry.

Bibliography, 24 pages

GC20-1747

EDUCATION INDUSTRY BIBLIOGRAPHY

The purpose of this bibliography and the associated classification system is to list and categorize IBM application publications that are pertinent to the Education industry. Section I lists these publications by subject area. Section II contains an abstract of each publication in form number sequence.

A periodic Bibliography of Application Publications (BAP) newsletter is published to keep the bibliography up to date. The newsletter is divided into two sections. Section I is an updated listing of application publications by application or industry. This section also includes any corrections to the bibliography and a list of superseded publications. Section II contains an abstract of each publication not included in the published bibliography.

Bibliography, 32 pages

GC20-8078

FORM AND CARD DESIGN

This manual is divided in two sections--the first devoted to form design and the second to card design. Its use presupposes a knowledge of IBM data processing equipment. It can be used as a guide for individual study or a text for class study.

DP Techniques Manual, 16 pages

GC21-5002

IBM 1130 RPG LANGUAGE

This reference publication contains fundamentals of RPG programming and language specifications for the IBM 1130 Computing System.

Systems Reference Library Manual, 260 pages

GC26-3629

IBM 1130 CARD/PAPER TAPE PROGRAMMING SYSTEM OPERATOR'S GUIDE

This publication provides the information necessary to operate the IBM 1130 Card and Paper Tape Programming Systems: FORTRAN Compiler, Assembler and Compressor, Subroutine Library, and Utility Programs. Primarily intended for the machine operator, the manual describes the loading and restart procedures for the programming systems in detail.

Systems Reference Library Manual, 76 pages

GC26-3706

IBM 1130 SYNCHRONOUS COMMUNICATIONS, ADAPTER SUBROUTINES PROGRAM NUMBER 1130-LM-004

This manual describes the subroutines used in connection with the 1130 Synchronous Communications Adapter, which permits the attachment of the 1130 Computing System to private and commercial common-carrier facilities.

Included in the descriptions are calling sequences for the subroutines and explanations of the parameters involved.

The following publications constitute prerequisite information required for effective use of this publication: DATA COMMUNICATIONS PRIMER (GC20-1668) and GENERAL INFORMATION-BINARY SYNCHRONOUS COMMUNICATIONS (GA27-3004).

Systems Reference Library Manual, 80 pages

GC26-3709

IBM 1130 DISK MONITOR SYSTEM, VERSION 2, SYSTEM INTRODUCTION

This publication describes the 1130 Disk Monitor System, Version 2.

The 1130 Disk Monitor System, Version 2, is a combined programming and operating system that provides for continuous operation of the 1130 in a stacked job environment. This monitor system supports the expanded hardware features and the high-speed input/output devices available on the 1130.

Systems Reference Library Manual, 10 pages

GC26-3715

IBM 1130/1800 BASIC FORTRAN IV LANGUAGE

This publication presents the specifications and programming rules for the Basic FORTRAN IV Language used under the following programming systems:

- IBM 1130 Card/Paper Tape Programming System
- IBM 1130 Disk Monitor System, Version 1
- IBM 1130 Disk Monitor System, Version 2
- IBM 1800 Card/Paper Tape Programming System
- IBM 1800 Time-Sharing Executive Operating System
- IBM 1800 Multiprogramming Executive Operating System

Sections on constants, variables, arrays, arithmetic operators, FORTRAN statements, statement numbers, and compilation messages are provided for use by programmers who write FORTRAN IV programs for the 1130 or 1800 system. Programmers using this manual are expected to have a basic knowledge of the FORTRAN language and its application.

Manual, 62 pages

GC26-3717

IBM 1130 DISK MONITOR SYSTEM, VERSION 2, PROGRAMMER'S AND OPERATOR'S GUIDE: PROG. NOS. 1130-OS-005, 006, 1130-CQ-009

This publication presents reference information for the programmer and operator of the IBM 1130 Disk Monitor System, Version 2. This information includes:

- o General descriptions of the disk areas and programs of DM2.
- o Descriptions of the DM2 control records.
- o Programming tips and techniques for more efficient use of DM2.
- o Operating procedures for loading, reloading, and using DM2.
- o Functions of the 1130 Remote Job Entry Work Station Program, Program Number, 1130-CQ-009.
- o Error messages and codes, and wait codes that are printed and displayed by the programs of DM2.

Related System Reference Library publications for the Disk Monitor System are abstracted and referenced in the IBM 1130 Bibliography, GA26-5916.

Manual, 508 pages

GC26-3750

IBM 1130 DISK MONITOR SYSTEM (VERSION 1) REFERENCE MANUAL  
This publication describes Version 1 of the 1130 Disk Monitor, a combined operating and programming system. This system includes a Supervisor program, a Disk Utility program, a symbolic assembler, a FORTRAN compiler, and a subroutine library. The latter four programs operate under control of the Supervisor program to provide continuous operation.  
Systems Reference Library Manual, 100 pages

GC26-3755

IBM 1130/1800 PLOTTER SUBROUTINES  
This publication describes relocatable plotter subroutines for the IBM 1130 and 1800 systems. These subroutines can be used to draw and scale grid lines, to draw special point characters, to draw alphameric characters at various angles, and to plot curves, graphs, charts, and maps. The subroutines can be used in both assembler and FORTRAN language programs.  
Manual, 28 pages

GC26-3778

IBM 1130/1800 ASSEMBLER LANGUAGE (1130 DMS AND 1800 MPX)  
This manual describes the 1130/1800 Macro Assembler, its language, and the use of the language for both the 1130 Disk Monitor System, Version 2, and the 1800 Multiprogramming Executive Operating System, Version 3.  
The information presented can be used by programmers who know number systems and basic computer terms to learn the 1130/1800 assembler language, and by programmers who know this assembler language to learn about macro programming.  
This manual describes assembler language, assemblers, the 1130/1800 Macro Assembler, and for this particular assembler, the basic assembler-language statement structure, and assembler-language statements, program creation and execution, macro instructions, creation of a macro language, macro library maintenance, and detection and correction of errors in assembler language programs.  
Manual, 268 pages

GC26-5927

IBM 1130 ASSEMBLER LANGUAGE (1130 C/PT)  
This publication contains the information necessary to write programs in the IBM 1130 Assembler language. Included are rules for statement writing, mnemonic codes and descriptions of operands, and descriptions of the instructions used to control the Assembler program.  
Systems Reference Library Manual, 44 pages

GC26-5929

IBM SUBROUTINE LIBRARY (SRL), PROG. NOS. 1130-LM-001, 002  
This publication describes the libraries provided with the following programming systems:  
o 1130 Card/Paper Tape  
o 1130 Disk Monitor, Version 2  
The programming system libraries consist of input/output, conversion, arithmetic, functional, and utility subroutines. Included in the descriptions are calling sequences for the subroutines and explanations of the parameters involved.  
The section on conversion subroutines describes the codes used to communicate with the 1130 system I/O devices. An appendix lists these codes and shows their relationship to each other.  
Manual, 150 pages

GC27-6934

IBM 1130/2250 GRAPHIC SUBROUTINE PACKAGE FOR BASIC FORTRAN IV, PROGRAM NUMBER 1130-LM-008  
This publication describes subroutines used for the IBM 2250 Display Unit Model 4 in association with the IBM 1130 Disk Monitor System, Version 2. The Subroutines enable a program written in either 1130 Basic FORTRAN IV or 1130 Assembler language to display alphameric information or graphic forms on the 2250 screen and to communicate with the 2250 operator.  
It is assumed that the FORTRAN user of this publication has had experience with the IBM 1130 Disk Monitor System and 1130 Basic FORTRAN IV language. It is assumed that the Assembler-language user of this publication is experienced in both the 1130 FORTRAN IV and Assembler languages.  
Systems Reference Library Manual, 108 pages

GC27-6937

IBM SYSTEM/360 OPERATING SYSTEM AND 1130 DISK MONITOR SYSTEM, SYSTEM/360 - 1130 DATA TRANSMISSION FOR FORTRAN PROGRAM NUMBERS 360S-LM-542 AND 1130-LM-011  
This publication describes subroutines that enable a FORTRAN IV programmer to transmit data between a program being processed by the IBM System/360 Operating System and a program being processed by the IBM 1130 Disk Monitor System Version 2. It also describes how these subroutines can be used by an Assembler Language programmer.  
The subroutines described in this publication make up what is called the processor-to-processor (PTOP) program. With these subroutines, the FORTRAN programmer can perform telecommunication procedures similar to those available

to Assembler Language programmers via the binary synchronous services of the Basic Telecommunications Access Method (in the System/360 Operating System) and the Synchronous Communications Adapter subroutines (in the 1130). The PTOP subroutines are not an extension of the FORTRAN IV Language, but are to be used in conjunction with it.

It is assumed that the FORTRAN user of this publication is experienced in the FORTRAN IV language of both the IBM System/360 Operating System and the IBM 1130 Disk Monitor System Version 2. It is assumed that the Assembler Language user of this publication is experienced in the Assembler Language of both systems. Detailed knowledge of binary synchronous communications programming is unnecessary.  
Systems Reference Library Manual, 64 pages

GC34-0015

IBM 1130 COMPUTING SYSTEM, MULTIPLE TERMINAL COMMUNICATIONS ADAPTER (MTCA), INPUT/OUTPUT CONTROL SYSTEM (IOCS) SUBROUTINES  
This publication provides the information necessary to operate the IBM 1130 Multiple Terminal Communications Adapter (MTCA) Input/Output Control System (IOCS) Subroutines. The publication is intended for 1130 FORTRAN language users of the MTCA and 1130 Assembler language users who wish to control the MTCA on a simplified interface.

An introductory section on teleprocessing familiarizes the user with the concepts employed. The individual routines which comprise the package are described, and calling sequences (with parameters involved) are detailed for the aforementioned user types.

Aspects of the publication include a section on error analysis and handling, a section on programming tips and techniques, and a sample program (Assembler language).

Knowledge of the basic structure and use of the 1130 Subroutine Library is assumed for the Assembler language interface. The functional characteristics of the adapter are not explained in detail.  
Systems Reference Library Manual, 42 pages

GE20-0197

1130 ROUTE ACCOUNTING SYSTEM FOR DAIRIES AND BAKERIES - APPLICATION DESCRIPTION, PROG. NO. 1130-DX-01X  
This manual contains the general description of programs designed to perform the route accounting functions for a dairy or bakery using an IBM 1130 system. These functions include production reporting, loading documents, route settlement, and statistical reporting.  
Run descriptions, machine and systems configurations, a general systems chart, and illustrations of reports and files are also included in this manual. (32 pages)  
Application Program Manual, 28 pages

GF20-8172

BIBLIOGRAPHY OF DATA PROCESSING TECHNIQUES  
This bibliography provides a selection of IBM publications which, either wholly or in part, describe data processing techniques - generally useful methods and applications, studies in analysis and design, management of a data processing department, and the like. The listing of a publication in this bibliography does not, however, preclude its appearance in one or more bibliographies for specific systems.  
Titles, order numbers, current status, and an abstract of each item are provided. Titles are listed two ways: by topic, with order number indicated and in order-number sequence with title given.  
Manual, 8 pages

GH12-5002

IBM 1130 AND 1800 SUBROUTINE LIBRARY-MATHEMATICS (SL-MATH) PPDO (PROGRAM PRODUCT DESIGN OBJECTIVES), PROG. NO. 5711-XM2  
The Subroutine Library-Mathematics (SL-MATH) is a collection of mathematical subroutines written completely in FORTRAN IV language. It consists of input/output-free computational building blocks that can be combined with the user's input or computation routines to meet his individual requirements. Design objectives, 2 pages

GH12-5103

IBM SYSTEM/360 AND SYSTEM/370, IBM 1130 AND 1800 SUBROUTINE LIBRARY-MATHEMATICS (SL-MATH) GENERAL INFORMATION MANUAL, PROG. NOS. 5736-XM7, 5711-XM2  
The Subroutine Library-Mathematics (SL-MATH) is a collection of subroutines dealing with matrix algebra and numerical mathematics. The subroutines are written in FORTRAN IV. SL-MATH consists of input/output-free computational building blocks which may be combined with the user's input or computation routines to meet his individual requirements. The subroutines in this library can be applied to the solution of many problems in industry, science, and engineering.

This manual presents an introduction to SL-MATH, a list of the capabilities of the library, rules of usage, system configuration, programming systems, and a list of reference material.  
Manual, 41 pages

GH20-0139

1130 TYPE COMPOSITION PROGRAM (1130-DP-04X),APPLICATION DESCRIPTION

The IBM 1130 Type Composition Program accepts textual material and format control instructions for transcription into punched paper tape output to control the operation of linecasting machines. The output tape contains the original copy in the form of properly justified lines arranged according to the specified stylistic and graphic requirements.

Application Program Manual, 17 pages

GH20-0140

1130 NUMERICAL SURFACE TECHNIQUES AND CONTOUR MAP PLOTTING  
VERSION 2, APPLICATION DESCRIPTION, PROG. NOS. 1130-CX-11X,  
1130-CX-38X

This set of programs is designed for applications that require the quantitative description of surfaces. These programs make numerical or analytical approximations to a set of coordinate values that define a surface. There are programs in the set that can also be used to display any of the calculated surfaces as a plotted contour map.

This manual contains a description of the individual programs in the set, the machine configuration, and a general systems chart.

Manual, 12 pages

GH20-0143

CIVIL ENGINEERING COORDINATE GEOMETRY (COGO) FOR IBM 1130  
PROG NO. 1130-EC-02X - APPLICATION DESCRIPTION

COGO is designed specifically for civil engineering geometry problems. Engineers state problems in familiar vocabulary, and statement input generates problem solution. Programming, in the usual sense, is unnecessary, and no intermediate programming is needed.

The program is written for an 8K card 1130 Model II and operates under the 1130 Monitor system.

This manual describes the basic features of the 1130 COGO language and its implementation on the 1130.

Application Program Manual, 8 pages

GH20-0208

1800/1130 CONTROL OPTIMIZATION PROGRAM (COP/1800-1130)  
(1800-CC-01X) APPLICATION DESCRIPTION

This is a general purpose, nonlinear optimization program with features that make it particularly suited to online use in an optimizing process control system.

This manual describes the methods used by COP/1800 1130 and features of the program.

Manual, 40 pages

GH20-0209

1130 CONTINUOUS SYSTEM MODELING PROGRAM (1130-CX-13X)  
APPLICATION DESCRIPTION

This program provides engineers and scientists with a simple but versatile means for simulation of continuous processes. It is a "digital analog simulator" program using a block-oriented input language in which the functional blocks represent the elements and organization of an analog computer. Features of the 1130 Computing System are used to permit online experimentation with the continuous system model.

The manual contains a general description of the application, machine configuration requirements, a general systems chart, and a sample problem.

Application Program Manual, 14 pages

GH20-0221

1130 COMMERCIAL SUBROUTINE PACKAGE APPLICATION DESCRIPTION  
VERSION 2 (1130-SE-25X)

The IBM 1130 Commercial Subroutine Package is for 1130 users with a knowledge of FORTRAN. The routines are intended to give commercial capability to users of IBM 1130 FORTRAN; they are not intended to make FORTRAN a complete commercial language. This manual provides sufficient information to determine the applicability of the package.

Application Program Manual - 10 pages

GH20-0225

1130 SCIENTIFIC SUBROUTINE PACKAGE (1130-CM-02X) APPLICATION  
DESCRIPTION MANUAL

The Scientific Subroutine Package (SSP) is a collection of FORTRAN subroutines divided, for the sake of presentation, into three groups: statistics, matrix manipulation, and other mathematics. This manual gives brief abstracts of the subroutines and some of their common characteristics.

Application Program Manual, 14 pages

GH20-0235

1130 DATA PRESENTATION SYSTEM, VERSION 2, APPLICATION DES-  
CRPTION MANUAL, PROG. NO. 1130-CX-14X

An application programming system designed to provide the 1130 user with graphic data processing programming support.

It is applicable to such varied application areas as engineering analysis, performance reports, efficiency

studies, quality control and data analysis.  
Application Program Manual, 28 Pages

GH20-0237

STRUCTURAL ENGINEERING SYSTEM SOLVER (STRESS) FOR THE  
IBM 1130, MODEL 2B (1130-EC-03X) VERSION 2, APPLICATION  
DESCRIPTION

This program is designed specifically for the solution of structural engineering problems. It uses a problem-oriented input language which enables the structural engineer to communicate with the computer even though he has no previous programming experience.

The program can analyze structures with prismatic members in two or three dimensions, with either pinned or rigid joints, and subjected to concentrated or distributed loads, support motions, or temperature effects.

The program is written for an 8K card 1130, Model 2, with disk, and operates under the 1130 Monitor system.

Application Program Manual, 24 pages

GH20-0238

1130 LINEAR PROGRAMMING-MATHEMATICAL OPTIMIZATION  
SUBROUTINE SYSTEM (1130 LP-MOSS): APPLICATION DESCRIPTION,  
PROG NO. 1130-CO-16X

This program provides the 1130 disk user with a simple, efficient means of solving LP problems, and with a powerful tool for implementing other mathematical optimization application.

The system contains all the procedures necessary to solve an LP problem and to perform an extensive postoptimal analysis of the problem. The system provides extensive data generation and maintenance facilities.

To solve an LP problem, these procedures are called into core storage by procedure control statements that define the processing sequence. The control statements may originate on cards or on paper tape.

This manual contains a description of the system, the machine configuration required, and limits on problem size.

Application Program Manual, 20 pages

GH20-0241

1130 COMMERCIAL SUBROUTINE PACKAGE (1130-SE-25X), VERSION 3  
MOD. 1 - PROGRAM REFERENCE MANUAL

The IBM 1130 Commercial Subroutine Package is for IBM 1130 users with a knowledge of FORTRAN. The package is not intended to make FORTRAN a complete commercial language, but to supply commercial capability to users of IBM 1130 FORTRAN.

This manual is a combined user's, operator's, and system manual.

Application Program Manual, 200 pages

GH20-0252

1130 SCIENTIFIC SUBROUTINE PACKAGE (1130-CM-02X)  
PROGRAMMER'S MANUAL

The Scientific Subroutine Package (SSP) is a collection of 121 FORTRAN subroutines divided, for the sake of presentation, into three groups: statistics, matrix manipulation, and other mathematics. It is a collection of input/output-free computational building blocks that can be combined with a user's input, output, or computational routines to meet his needs. The package can be applied to the solution of many problems in industry, science, and engineering.

Application Program Manual, 192 pages

GH20-0268

1130 MECHANISM DESIGN SYSTEM - GEARS AND SPRINGS, VERSION 2,  
APPLICATION DESCRIPTION MANUAL, PROG. NO. 1130-EM-01X

A set of programs for the mechanical engineer involved in mechanism design or analysis. The descriptive input furnished by the engineer generates design documentation necessary for evaluation and manufacture of these components.

The program performs the design calculations for spur and helical gears, compression, extension and torsion springs. The design restrictions and functional requirements are provided by the engineer as program input. If the requirements can be met within these restrictions, the engineer receives design data necessary for manufacturing and inspecting the component, as well as additional calculated data necessary to evaluate the design. This is a plan series program.

Application Program Manual, 24 Pages

GH20-0282

1130 CONTINUOUS SYSTEM MODELING PROGRAM: PROGRAM DESCRIPTION  
AND OPERATIONS MANUAL, PROG. NO. 1130-CX-13X

This program for the IBM 1130 provides the engineer and scientist with a simple yet versatile means for simulating continuous processes. It provides a large complement of functional elements and a block-oriented language for specifying their interconnection. Features of the 1130 are used to advantage to achieve operational flexibility for online experimentation.

This manual contains a general description of the application, detailed programming information, operating instructions, and a sample problem.



Application Program Manual, 50 pages

GH20-0284

1130 CONTINUOUS SYSTEM MODELING PROGRAM (1130-CX-13X) SYSTEM MANUAL

This manual provides detailed information to assist the user in gaining a more thorough knowledge of the programming logic employed in the application.

The System Manual presents flowcharts, flowchart narratives, a list of switches, and program listings. Application Program Manual, 120 pages

GH20-0287

1130 TYPE COMPOSITION PROGRAM (1130-DP-04X), PROGRAMMER'S MANUAL

This program enables type compositors to realize significant time saving in producing printed matter from original copy. Under the direction of the program, the computer accepts six-channel paper tape input containing printer-oriented format control instructions and the copy that is to appear in print. The program interprets the format instructions and produces a tape that controls the operation of a linecasting machine.

This manual contains a general description of the program, a program systems chart, input/output description, a detailed format control instruction discussion, program modification aids, and sample problems. Application Program Manual, 179 pages

GH20-0288

1130 TYPE COMPOSITION PROGRAM (1130-DP-04X), OPERATOR'S MANUAL

This program enables type compositors to realize significant time saving in producing printed matter from original copy. Under the direction of the program, the computer accepts six-channel paper tape input, which contains printer oriented format control instructions and the copy that is to appear in print. The program interprets the format instructions and produces a tape suitable for controlling the operation of a linecasting machine.

This manual contains program setup instructions, console operating procedures, error messages and restart procedures, and storage maps. Application Program Manual, 38 pages

GH20-0301

CIVIL ENGINEERING COORDINATE GEOMETRY (COGO) FOR IBM 1130, PROG. NO. 1130-EC-02X - USER'S MANUAL

COGO is designed specifically for civil engineering geometry problems. Engineers state problems in familiar vocabulary, and statement input generates problem solution. Programming, in the usual sense, is unnecessary, and no intermediate programming is needed.

The program is written for an 8K card 1130 Model II and operates under the 1130 Monitor system.

This manual describes the basic features of the 1130 COGO language and its implementation on the 1130. Application Program Manual, 78 pages

GH20-0328

1130 ROUTE ACCOUNTING FOR DAIRIES AND BAKERIES (1130-DX-01X) - USER'S MANUAL

This publication contains procedural instructions for the implementation of the IBM 1130 Route Accounting System for Dairies and Bakeries. A general systems chart, instructions for the creation and maintenance of the required disk files, punched card input/output formats, preprinted form layouts, and disk record layouts are included. In addition, a general description of each program is given, and a sample problem is furnished.

The reader is assumed to know the functions of the system as given in 1130 ROUTE ACCOUNTING SYSTEM FOR DAIRIES AND BAKERIES, APPLICATION DESCRIPTION (E20-0197). Manual, 66 pages

GH20-0330

1130 ROUTE ACCOUNTING SYSTEM FOR DAIRIES AND BAKERIES (1130-DX-01X) - OPERATOR'S MANUAL

This publication contains instructions for the operation of the IBM 1130 Route Accounting System for Dairies and Bakeries. Included are instructions for initialization of the system, and operating instructions for each program in the system. Application Program Manual, 88 pages

GH20-0333

1130 STATISTICAL SYSTEM (1130-CA-06X) USER'S MANUAL

The 1130 Statistical System performs four major statistical functions-regression analysis, factor analysis, analysis of variance, and polynomial fitting.

This manual contains, for each type of analysis performed, a description of the computational algorithms used, the form and content of the control cards, operating instructions, and sample problems. Application Program Manual, 120 pages

GH20-0337

1130 DATA PRESENTATION SYSTEM (1130-CX-14X) VERSION 2 OPERATIONS GUIDE

An application programming system designed to provide the 1130 user with graphic data processing programming support. It is applicable to such varied application areas as engineering analysis, performance reports, efficiency studies, quality control and data analysis. Application Program Manual

GH20-0338

1130 DATA PRESENTATION SYSTEM (1130-CX-14X) VERSION 2 PROGRAM REFERENCE MANUAL

An application programming system designed to provide the 1130 user with graphic data processing programming support. It is applicable to such varied application areas as engineering analysis, performance reports, efficiency studies, quality control and data analysis. Application Program Manual, 180 Pages

GH20-0340

STRUCTURAL ENGINEERING SYSTEM SOLVER (STRESS) FOR THE IBM 1130 (1130-EC-03X) VERSION 2, USER'S MANUAL

This program is designed specifically for the solution of structural engineering problems. It uses a problem-oriented input language that enables the structural engineer to communicate with the computer even though he has no previous programming experience.

The program can analyze structures with prismatic members in two or three dimensions, with either pinned or rigid joints, and subjected to concentrated or distributed loads, displacements, or temperature effects.

The program is written for an 8K card 1130, Model 2, with disk, and operates under the 1130 Monitor system. Application Program Manual, 50 pages

GH20-0341

1130 STATISTICAL SYSTEM (1130-CA-06X) APPLICATION DESCRIPTION

The IBM 1130 Statistical System consists of a set of four separate statistical routines for polynomial curve fitting, stepwise linear regression, factor analysis, and analysis of variance. The user may process his data by only one of the routines or by multiple routines where the results by processing by one can be used by another. Input and output formats as well as processing options may be specified by the user. Application Program Manual, 8 pages

GH20-0342

1130 PROJECT CONTROL SYSTEM VERSION 2: PROGRAM DESCRIPTION MANUAL PROG. NO. 1130-CP-05X

The 1130 Project Control System serves as the data processing element of a system that helps management carry out its functions of planning and supervising projects, within a broader environment of operations and procedures. Although designed primarily for those areas of government and industry concerned with construction, repair, or maintenance, the system will meet the critical path requirements of a broad range of users, irrespective of industry. It will process data from networks planned in either precedence-diagramming or arrow-diagramming methods. The system consists of a set of routines stored on disk. The sequence of processing and system outputs is controlled by the system control card, the type of input data to be processed, and the output report requests submitted at run time. Output reports include status listings, bar charts, and basic resource and cost summarization reports. Updating capability is provided for network restructuring as well as progress reporting for in-process work items. Application Program Manual, 126 pages

GH20-0343

1130 PROJECT CONTROL SYSTEM VERSION 2: OPERATIONS MANUAL PROG. NO. 1130-CP-05X

The 1130 Project Control System serves as the data processing element of a system that helps management carry out its functions of planning and supervising projects, within a broader environment of operations and procedures. Although designed primarily for those areas of government and industry concerned with construction, repair, or maintenance, the system meets the critical path requirements of a broad range of users, irrespective of industry. The system processes data from networks planned in either precedence diagramming or arrow diagramming methods, and consists of a set of routines stored on disk. The sequence of processing and system outputs is controlled by the system control card, the type of input data to be processed, and the output report requests submitted at run time. Output reports include status listings, bar charts, and basic resource and cost summarization reports. Updating capability is provided for network restructuring as well as progress reporting for in-process work items.

The Operator's Manual describes the procedures for library creation and maintenance, for system run preparation and processing, and for producing master file listings and backup decks. It also shows the names of PCS programs and data files. Application Program Manual, 18 pages

GH20-0345

1130 LINEAR PROGRAMMING-MATHEMATICAL OPTIMIZATION  
SUBROUTINE SYSTEM (1130 LP-MOSS) (1130-CO-16X) PROGRAM  
REFERENCE MANUAL

This manual contains all the information needed to use the LP-MOSS/1130 Linear Programming System. Chapter 1 is written in tutorial form to present concepts to new users. The rest of the manual describes the system procedures, data formats, and operating instructions.  
Application Program Manual, 66 pages

GH20-0351

1800/1130 CONTROL OPTIMIZATION PROGRAM (COP/1800-1130)  
VERSION 2 (1800-CC-01X) PROGRAM DESCRIPTION AND OPERATIONS

This is a general purpose, nonlinear optimization program with features that make it particularly suited to online use in an optimizing process control system.  
This manual describes the program and its features, procedures for preparing the program for use (system generation) and the use of the program.  
Manual, 72 pages

GH20-0356

1130 NUMERICAL SURFACE TECHNIQUES AND CONTOUR MAP PLOTTING  
VERSION 2 - OPERATOR'S MANUAL - PROG. NOS. 1130-CX-11X, 38X

This set of programs is adaptable to application areas that require the quantitative description of surfaces. Programs are included for making numerical or analytical approximations to a set of coordinate values defining a surface, and for preparing a display of the geometry of the surface in the form of a plotted contour map.  
This manual presents program organization, input deck arrangement, operating instructions, a halts and message list, and restart procedures.  
Manual, 14 pages

GH20-0357

1130 NUMERICAL SURFACE TECHNIQUES AND CONTOUR MAP PLOTTING  
VERSION 2 PROGRAMMERS MANUAL - PROG. NOS. 1130-CX-11X, 38X

This set of programs is adaptable to application areas that require the quantitative description of surfaces. Programs are included for making numerical or analytical approximations to a set of coordinate values defining a surface, and for preparing a display of the geometry of the surface in the form of a plotted contour map.  
This manual contains a general description of the application, a general systems chart, and, for each program, a program abstract, program description, and input/output description. Two sample problems illustrate the use of the individual programs and the interaction between programs.

The reader of this manual is assumed to have a general understanding of disk concepts and an elementary knowledge of the functions of a monitor system (see IBM 1130 Disk Monitor System, Reference Manual, GC26-3750).  
Manual, 80 pages

GH20-0365

1130 MECHANISM DESIGN SYSTEM - GEARS AND SPRINGS, VERSION 2,  
PROGRAM DESCRIPTION MANUAL, PROG. NO. 1130-EM-01X

A set of programs for the mechanical engineer involved in mechanism design or analysis. The descriptive input furnished by the engineer generates design documentation necessary for evaluation and manufacture of these components.

The program performs the design calculations for spur and helical gears, compression, extension and torsion springs. The design restrictions and functional requirements are provided by the engineer as program input. If the requirements can be met within these restrictions, the engineer receives design data necessary for manufacturing and inspecting the component, as well as additional calculated data necessary to evaluate the design. This is a plan series program.  
Application Program Bulletin, 204 Pages

GH20-0366

1130 MECHANISM DESIGN SYSTEM - GEARS AND SPRINGS, VERSION 2,  
OPERATIONS MANUAL, PROG. NO. 1130-EM-01X

A set of programs for the mechanical engineer involved in mechanism design or analysis. The descriptive input furnished by the engineer generates design documentation necessary for evaluation and manufacture of these components. The program performs the design calculations for spur and helical gears, compression, extension and torsion springs. The design restrictions and functional requirements are provided by the engineer as program input. If the requirements can be met within these restrictions, the engineer receives design data necessary for manufacturing and inspecting the component, as well as additional calculated data necessary to evaluate the design. This is a plan series program.  
Application Program Bulletin

GH20-0401

1130 ECONOMIC EVALUATION OF PETROLEUM PROJECTS PROGRAM  
(1130-MP-01X) APPLICATION DESCRIPTION

This program is designed primarily for evaluating the economic merits of oil and gas production. However, program

flexibility allows for the evaluation of other types of investment situations. Four measures of the merits of an investment are calculated with discounted cash flow methods.

This manual contains a general description of the application and the program, the minimum machine requirements, a general systems chart, a brief input/output description, and two sample problems.  
Application Program Manual, 21 pages

GH20-0402

1130 ECONOMIC EVALUATION OF PETROLEUM PROJECTS PROGRAM  
(1130-MP-01X) PROGRAMMER'S MANUAL

This program is designed primarily for evaluating the economic merits of oil and gas production. However, program flexibility allows for the evaluation of other types of investment situations. Four measures of the merits of an investment are calculated with discounted cash flow methods.

This manual contains a general description of the application, a program systems chart, input/output description, program modification aids, and sample problems.  
Application Program Manual, 25 pages

GH20-0403

1130 ECONOMIC EVALUATION OF PETROLEUM PROJECTS PROGRAM  
(1130-MP-01X) OPERATOR'S MANUAL

This program is designed primarily for evaluating the economic merits of oil and gas production. However, program flexibility allows for the evaluation of other types of investment situations. Four measures of the merits of an investment are calculated with discounted cash flow methods.

This manual contains a program setup sheet, console operating instructions, input data organization charts, and a halts and message list.  
Application Program Manual, 10 pages

GH20-0405

1130 CASING DESIGN PROGRAM (1130-MP-02X)  
APPLICATION DESCRIPTION

This program is designed for users with an 8K, IBM 1130 Computing System, Model 2. It provides a flexible method of designing combination casing strings and allows the user to exercise inventory control over the types of casings available for design purposes.

This manual presents a general description, machine and system configuration, general systems chart, a list of input/output files, and a sample problem.  
Application Program Manual, 8 pages

GH20-0406

1130 CASING DESIGN PROGRAM (1130-MP-02X) -  
PROGRAMMER'S MANUAL

This program is written for use on an IBM 1130 Computing System, Model 2. It will analyze a variety of casing-joint combinations and, with available inventory, design the most economical combination string based on casing weight and grade.

This manual contains general description of the program, a program systems chart, input/output description, and sample problems.  
Programmer's Manual, 16 pages

GH20-0407

1130 CASING DESIGN PROGRAM (1130-MP-02X) OPERATOR'S MANUAL

This program is designed for use on an 8K, IBM 1130 Computing System, Model 2. It provides a flexible method of designing combination casing strings and allows the user to exercise inventory control over the types of casings available for design purposes.

This manual contains a program setup sheet, console operating instructions, halts and message list, and restart procedures.  
Application Program Manual, 7 pages

GH20-0409

1130 DECLINE CURVE ANALYSIS PROGRAM (1130-MP-03X)  
APPLICATION DESCRIPTION

This program is used to evaluate the total production over a future period of a petroleum reservoir, on the basis of past production.

This manual contains a general description of the various runs, machine configuration, general systems chart, and a sample problem.  
Application Program Manual, 14 pages

GH20-0410

1130 DECLINE CURVE ANALYSIS PROGRAM (1130-MP-03X)  
PROGRAMMER'S MANUAL

This program is used to evaluate the total production over a future period of a petroleum reservoir, on the basis of past production.

This manual contains a general description of the program, program systems chart, input/output description, program modification aids, and a sample problem.  
Application Program Manual, 14 pages



GH20-0411

1130 DECLINE CURVE ANALYSIS PROGRAM (1130-MP-03X)  
OPERATOR'S MANUAL

This program is used to evaluate the total production over a future period of a petroleum reservoir, on the basis of past production.

This manual contains a program setup procedure, console operating instructions, halts and message list, and restart procedures.

Application Program Manual

GH20-0413

1130 TARNER MATERIAL BALANCE PROGRAM (1130-MP-04X)  
APPLICATION DESCRIPTION

This program is designed to solve the basic material balance equation for a saturated depletion-type reservoir, using Turner's method to predict future recovery, gas-oil ratio, and gas production, and, if desired, to display the results in graphic form using the IBM 1627 Plotter.

This manual contains a general description of the application, machine configuration, required systems, a general system chart, a list of input/output files, and a sample problem.

Application Program Manual, 12 pages

GH20-0414

1130 TARNER MATERIAL BALANCE PROGRAM (1130-MP-04X)  
PROGRAMMER'S MANUAL

This program is designed to solve the basic material balance equation for a saturated depletion-type reservoir, using Turner's method to predict future recovery, gas-oil ratio, and gas production, and, if desired, to display the results in graphic form using the IBM 1627 Plotter.

This manual contains a general description of the application, a program systems chart, input/output description, program modification aids, and a sample problem.

Application Program Manual, 18 pages

GH20-0415

1130 TARNER MATERIAL BALANCE PROGRAM (1130-MP-04X)  
OPERATOR'S MANUAL

This program is designed to solve the basic material balance equation for a saturated depletion-type reservoir, using Turner's method to predict future recovery, gas-oil ratio, and gas production, and, if desired, to display the results in graphic form using the IBM 1627 Plotter.

This manual contains a program setup sheet, console operating instructions, halts and message list, and restart procedures.

Application Program Manual, 8 pages

GH20-0417

1130 SCHILTHUIS MATERIAL BALANCE PROGRAM (1130-MP-05X)  
APPLICATION DESCRIPTION

This program is useful in giving the petroleum engineer an estimate of the oil present in an oil reservoir based on calculation by the Schilthuis method. Cases are considered for reservoirs with or without gas caps and with or without a water drive.

This manual gives a description of the possible applications of the program, the machine configuration, a general systems chart, a list of input/output files, and a sample problem.

Application Program Manual, 24 pages

GH20-0418

1130 SCHILTHUIS MATERIAL BALANCE PROGRAM (1130-MP-05X)  
PROGRAMMER'S MANUAL

This program is useful in giving the petroleum engineer an estimate of the original oil present in an oil reservoir based on calculation by the Schilthuis method. Cases are considered for reservoirs with or without gas caps and with or without natural water drives.

This manual gives a complete description of the program and how it operates to solve the problem.

Application Program Manual, 32 pages

GH20-0419

1130 SCHILTHUIS MATERIAL BALANCE PROGRAM (1130-MP-05X)  
OPERATOR'S MANUAL

This program is designed primarily to give the petroleum engineer an estimate of the oil present in an oil reservoir based on calculation by the Schilthuis method.

This manual contains a program setup sheet, console operating instruction, halts and message list, and restart procedures.

Application Program Manual, 9 pages

GH20-0421

1130 TWO-DIMENSIONAL WATERFLOODING PROGRAM (1130-MP-06X)  
APPLICATION DESCRIPTION

This program allows the user to determine the pressure distribution throughout a reservoir, taking into consideration the effect of water injection. The flood front is plotted on an online plotter.

This manual contains a general description of the

application, machine and system configuration, general systems chart, a list of input/output files, sample problem, and appendix.

Application Program Manual

GH20-0422

1130 TWO-DIMENSIONAL WATERFLOODING PROGRAM (1130-MP-06X)  
PROGRAMMER'S MANUAL

This program allows the user to determine the pressure distribution throughout a reservoir, taking into consideration the effect of water injection. The flood front is plotted on an online plotter.

This manual contains a general description of the program, program system chart, input/output description, program modification aids sample problem, and appendix.

Application Program Manual, 24 Pages

GH20-0423

1130 TWO-DIMENSIONAL WATERFLOODING PROGRAM (1130-MP-06X)  
OPERATOR'S MANUAL

This program allows the user to determine the pressure distribution throughout a reservoir, taking into consideration the effect of water injection. The flood front is plotted on an online plotter.

This manual presents a program setup sheet, console operating instructions, halts and message list, and restart procedures.

Application Program Manual, 12 pages

GH20-0425

1130 GAS DELIVERABILITY PROGRAM (1130-MP-07X)  
APPLICATION DESCRIPTION

This program predicts the gas production from a reservoir. Pertinent production factors such as allowables are taken into account. Program output is especially significant for use in the economic evaluation of a reservoir. A program option punches output in cards, suitable for input to the IBM 1130 Economic Evaluation of Petroleum Projects Program (1130-MP-07X).

This manual contains a general description of the application, the minimum machine configuration, a general systems chart, a list of input/output files, and a sample problem.

Application Program Manual, 10 pages

GH20-0426

1130 GAS DELIVERABILITY PROGRAM (1130-MP-07X)  
PROGRAMMER'S MANUAL

This program predicts the gas production from a reservoir. Pertinent production factors such as allowables are taken into account. Program output is especially significant for use in the economic evaluation of a reservoir. A program option punches output in cards, suitable for input to the IBM 1130 Economic Evaluation of Petroleum Projects Program (1130-MP-07X).

This manual contains a general description of the program, a program systems chart, a description of input/output, program modifications aids, and sample problems.

Application Program Manual, 20 pages

GH20-0427

1130 GAS DELIVERABILITY PROGRAM (1130-MP-07X)  
OPERATOR'S MANUAL

This program predicts the gas production from a reservoir. Pertinent production factors such as allowables are taken into account. Program output is especially significant for use in the economic evaluation of a reservoir. A program option punches output in cards, suitable for input to the IBM 1130 Economic Evaluation of Petroleum Projects Program (1130-MP-07X).

This manual contains control card details, illustrations of input card sequence, operating instructions, and a discussion on messages.

Application Program Manual, 9 pages

GH20-0429

1130 MULTI-STAGE FLASH CALCULATION PROGRAM (1130-MP-08X)  
APPLICATION DESCRIPTION

This program can be used to calculate the products of a flash distillation with up to four stages of flash separation.

This manual contains a general description of the program, machine configuration, general systems chart, a list of input/output files, and sample problems.

Application Program Manual, 23 pages

GH20-0430

1130 MULTI-STAGE FLASH CALCULATION PROGRAM (1130-MP-08X)  
PROGRAMMER'S MANUAL

This program can be used to calculate the products of a flash distillation with up to four stages of flash separation.

This manual contains a general description of the program, a program systems chart, input/output description, and sample problems.

Application Program Manual, 32 pages

GH20-0431

1130 MULTI-STAGE FLASH CALCULATION PROGRAM (1130-MP-08X) OPERATOR'S MANUAL

This program can be used to calculate the products of a flash distillation with up to four stages of flash separation.

This manual contains a program setup sheet, console operating instructions, halts and message list, and restart procedures.

Application Program Manual, 11 pages

GH20-0433

1130 VELOCITY FUNCTIONS FROM TIME-DEPTH DATA PROGRAM (1130-MP-09X) APPLICATION DESCRIPTION

This program generates the regression coefficients required for any of five specific geophysical equations (time-depth equations), makes a chart of one-way time-depth and various one-way time-velocities, and makes plots of these.

This manual contains a general description of the application, a general systems chart, a list of input/output files, and a sample problem.

Application Program Manual, 14 pages

GH20-0434

1130 VELOCITY FUNCTIONS FROM TIME-DEPTH DATA PROGRAM (1130-MP-09X) PROGRAMMER'S MANUAL

This program generates the regression coefficients required for any of five specific geophysical equations (time-depth equations), makes a chart of one-way time-depth and various one-way time-velocities, and makes plots of these.

This manual contains a general description of the program, a program systems chart, input/output description, and a sample problem.

Application Program Manual, 21 pages

GH20-0435

1130 VELOCITY FUNCTIONS FROM TIME-DEPTH DATA PROGRAM (1130-MP-09X) OPERATOR'S MANUAL

This program generates the regression coefficients required for any of five specific geophysical equations (time-depth equations), makes a chart of one-way time-depth and various one-way time-velocities, and makes plots of these.

This manual contains a program setup sheet, console operating instructions, halts and message list, and restart procedures.

Application Program Manual, 10 pages

GH20-0437

1130 WAVE-FRONT RAY-PATH DETERMINATION PROGRAM (1130-MP-10X) APPLICATION DESCRIPTION

This program is used for calculating the horizontal displacement and vertical depth of segments of a reflected seismic wave-front and for plotting these results.

This manual contains a general description of the application, machine configuration, general machine chart, a list of input/output files, and sample problems.

Application Program Manual, 12 pages

GH20-0438

1130 WAVE-FRONT RAY-PATH DETERMINATION PROGRAM (1130-MP-10X) PROGRAMMER'S MANUAL

This program is used for calculating the horizontal displacement and vertical depth of segments of a reflected seismic wave-front and for plotting these results.

This manual presents a general description of the program, program systems chart, input/output description, and a sample problem.

Application Program Manual, 16 pages

GH20-0439

1130 WAVE-FRONT RAY-PATH DETERMINATION PROGRAM (1130-MP-10X) OPERATOR'S MANUAL

This program is used for calculating the horizontal displacement and vertical depth of segments of a reflected seismic wave-front and for plotting these results.

This manual presents a program setup procedure, console operating instructions, halts and message list, and restart procedures.

Application Program Manual, 11 pages

GH20-0441

1130 SYNTHETIC SEISMOGRAM PROGRAM (1130-MP-11X) APPLICATION DESCRIPTION

This program accepts a digitized sonic or velocity well log as input, generates spike functions, filters these spikes through an arbitrary filter, and plots the results of these calculations on an online plotter.

This manual contains a general description of the application, machine and system configuration, a general system chart, a list of input/output files, and a sample problem.

Application Program Manual, 27 pages

GH20-0442

1130 SYNTHETIC SEISMOGRAM PROGRAM (1130-MP-11X) PROGRAMMER'S MANUAL

This program accepts a digitized sonic or velocity well log as input, generates spike functions, filters these spikes through an arbitrary filter, and plots the results of these calculations on an online plotter.

This manual contains a general description of the program, a program systems chart, input/output description, program modification aids, and a sample problem.

Application Program Manual, 37 pages

GH20-0443

1130 SYNTHETIC SEISMOGRAM PROGRAM (1130-MP-11X) OPERATOR'S MANUAL

This program accepts a digitized sonic or velocity well log as input, generates spike functions, filters these spikes through an arbitrary filter, and plots the results of these calculations on an online plotter.

This manual contains a program setup sheet, console operating instructions, halts and message list, and restart procedures.

Application Program Manual, 10 pages

GH20-0445

1130 GRAVITY AND MAGNETICS CONTINUATIONS DERIVATIVES AND RESIDUALS PROGRAM (1130-MP-12X) APPLICATION DESCRIPTION

In areas where adequate independent geological information is available for control, the study of magnetic or gravity data can yield substantial information about the subsurface structure.

Three methods of analysis are presented in this program:

1. The calculation of downward and upward continuations of the potential field
2. The calculation of the first and second vertical derivatives of the field
3. The calculation of the residuals

This manual contains a general description of the application, required systems, machine configuration, general system chart, a list of input/output files, and a sample problem.

Application Program Manual, 48 pages

GH20-0446

1130 GRAVITY AND MAGNETICS CONTINUATIONS DERIVATIVES AND RESIDUALS PROGRAM (1130-MP-12X) PROGRAMMER'S MANUAL

In areas where adequate independent geological information is available for control, this program aids in the analysis of magnetic and gravity data by calculating:

- Downward and upward continuations of the potential field
- First and second derivatives
- The residuals

This manual presents a general description of the program, a program system chart, input/output description, a sample problem, and glossary.

Application Program Manual, 53 pages

GH20-0447

1130 GRAVITY AND MAGNETICS CONTINUATIONS DERIVATIVES AND RESIDUALS PROGRAM (1130-MP-12X) OPERATOR'S MANUAL

In areas where adequate independent geological information is available for control, this program aids in the analysis of magnetic and gravity data by calculating:

- Downward and upward continuations of the potential field
- First and second derivatives
- The residuals

This manual contains a program setup sheet, console operating instructions, halts and message list, and restart procedures.

Application Program Manual, 9 pages

GH20-0449

1130 THEORETICAL GRAVITY OF A 3-D MASS PROGRAM (1130-MP-13X) APPLICATION DESCRIPTION

This program computes the gravity of a three-dimensional buried mass of assumed configuration and density contrast. Values are conventionally computed for a grid of simulated gravity stations.

This manual contains a general description of the program, machine configuration, general systems charts, a list of input/output files, and a sample problem.

Application Program Manual, 12 pages

GH20-0450

1130 THEORETICAL GRAVITY OF A 3-D MASS PROGRAM (1130-MP-13X) PROGRAMMER'S MANUAL

This program computes the gravity of a three-dimensional buried mass of assumed configuration and density contrast.

This manual contains a program abstract, program system chart, general description, input/output description, program modification aids, and a sample problem.

Application Program Manual, 20 pages

GH20-0451

1130 THEORETICAL GRAVITY OF A 3-D MASS PROGRAM (1130-MP-13X) OPERATOR'S MANUAL

This program calculates the gravity of a three-dimensional buried mass of assumed configuration and density contrast. This manual presents a load and setup procedure, console operating instructions, halts and message list, and restart procedures.  
Application Program Manual

- o programs by application or industry.
  - o Section II contains abstracts of application publications, in form number sequence.
  - o Section III contains abstracts of Field Developed Programs.
  - o Section IV contains abstracts of Installed User Programs.
- Promotional publications pertinent to the finance and securities industries are listed in Section V.  
Manual, 44 pages

GH20-0453

1130 QUANTITATIVE LOG ANALYSIS PROGRAM (1130-MP-14X) APPLICATION DESCRIPTION

This program permits the subsurface geologist to calculate porosity and water saturation along with many intermediate results on prospective hydrocarbon zones in a well. This manual contains a general description of the application, required systems, machine configuration, general system chart, a list of input/output files, sample problems, and a glossary.  
Application Program Manual, 20 pages

GH20-0520

1130 COMMERCIAL SUBROUTINE PACKAGE (1130-SE-25X) VERSION 3 APPLICATION DESCRIPTION

The IBM 1130 Commercial Subroutine Package is for 1130 users with a knowledge of FORTRAN. The routines are intended to give commercial capability to users of IBM 1130 FORTRAN; they are not intended to make FORTRAN a complete commercial language. This manual provides sufficient information to determine the applicability of the package.  
Application Program Manual, 14 pages

GH20-0454

1130 QUANTITATIVE LOG ANALYSIS PROGRAM (1130-MP-14X) PROGRAMMER'S MANUAL

This program permits the subsurface geologist to calculate porosity and water saturation along with many intermediate results on prospective hydrocarbon zones in a well. This manual contains a general description of the program, a program system chart, input/output description, program modification aids, sample problems, an appendix, and glossary.  
Application Program Manual, 28 pages

GH20-0522

DISTRIBUTION INDUSTRIES BIBLIOGRAPHY

The purpose of this bibliography and the associated classification system is to list and categorize IBM application publications that are pertinent to distribution industries. Section I lists these publications by application or industry. Section II contains an abstract of each publication, in form number sequence. A periodic Bibliography of Application Publications (BAP) Newsletter (GN20-1853) is published to keep the bibliography up to date. The newsletter is divided into two sections. Section I is an updated listing of application publications by application or industry. This section also includes any corrections to the bibliography and a list of superseded publications. Section II contains an abstract of each publication not included in the last published bibliography.  
Manual, 52 pages

GH20-0455

1130 QUANTITATIVE LOG ANALYSIS PROGRAM (1130-MP-14X) OPERATOR'S MANUAL

This program permits the subsurface geologist to calculate porosity and water saturation along with many intermediate results on prospective hydrocarbon zones in a well. This manual contains a program setup sheet, console operating instructions, halts and message list, and restart procedures.  
Application Program Manual, 12 pages

GH20-0530

PUBLIC UTILITY INDUSTRIES BIBLIOGRAPHY

The purpose of this bibliography and the associated classification system is to list and categorize IBM application publications that are pertinent to the telephone, and gas and electric industries. Section I lists these publications by application or industry. Section II contains an abstract of each publication, in form number sequence.

A periodic Bibliography of Application Publications (BAP) Newsletter (GN20-1866) is published to keep the bibliography up to date. The newsletter is divided into two sections. Section I is an updated listing of application publications by application or industry. This section also includes any corrections to the bibliography and a list of superseded publications. Section II contains an abstract of each publication not included in the last published bibliography.  
Manual, 24 pages

GH20-0457

1130 DIPMETER PROGRAM (1130-MP-15X) APPLICATION DESCRIPTION

This program calculates the true dip and direction of dip of rock strata, using data from a continuous dipmeter of either Schlumberger's CDM-T or CDM-P or a PGAC (Pan Geo Atlas Corporation) dipmeter. This manual contains a description of the application, required systems, machine configuration, general system chart, input/output files, a sample problem, and an appendix dealing with plotting subroutines.  
Application Program Manual, 20 pages

GH20-0531

MEDIA INDUSTRIES BIBLIOGRAPHY

The purpose of this bibliography and the associated classification system is to list and categorize IBM application publications that are pertinent to media industries. Section I lists these publications by application or industry. Section II contains an abstract of each publication, in form number sequence.

A periodic Bibliography of Application Publications (BAP) Newsletter (GN20-1867) is published to keep the bibliography up to date.

As an aid to the reader, Section III lists promotional publications, Section IV lists field developed programs, and Section V lists installed user programs pertinent to media industries.

A periodic Bibliography of Application Publications (BAP) Newsletter (GN20-1867) is published to keep the bibliography up to date.  
Manual, 18 pages

GH20-0458

1130 DIPMETER PROGRAM (1130-MP-15X) PROGRAMMER'S MANUAL

This program calculates the true dip and direction of dip of rock strata, using data from a continuous dipmeter of either Schlumberger's CDM-P or CDM-T or PGAC (Pan Geo Atlas Corporation) dipmeter. This manual contains a description of the application, program system chart, input/output description, program modification aids, a sample problem, and an appendix dealing with plotting subroutines.  
Application Program Manual, 26 pages

GH20-0459

1130 DIPMETER PROGRAM (1130-MP-15X) OPERATOR'S MANUAL

This program calculates the true dip and direction of dip of rock strata, using data from a continuous dipmeter of either Schlumberger's CDM-P or CDM-T, or a PGAC (Pan Geo Atlas Corporation) dipmeter. This manual contains a program setup sheet, console operating instructions, halts and message list, and restart procedure.  
Application Program Manual, 8 pages

GH20-0490

PROBLEM LANGUAGE ANALYZER (PLAN) APPLICATION DESCRIPTION PROGRAM NUMBERS 1130-CX-25X 360A-CX-26X 360A-CX-27X

This manual provides a description of the scope and purpose of the Problem Language Analyzer. It allows the reader to measure the applicability of this system to the solution of his problems and provides a description of the PLAN approach to modular problem solution.  
Application Program Manual, 16 Pages

GH20-0535

PLAN GRAPHICS SUPPORT FOR THE IBM 2250 ON SYSTEM/360 (OS) OR IBM 1130 - APPLICATION DESCRIPTION MANUAL, PROG. NOS. 1130-CX-33X AND 360A-CX-34X

PLAN Graphics Support is designed to drastically reduce the time required to convert existing applications or create new applications for graphic displays. This system supports Models 1, 3, and 4 of the IBM 2250 Display Unit.

With PLAN Graphics Support, the application programmer works at a level where he is relieved from tedious graphic programming. High-level statements allow the application programmer to simply state the format, content, and control options that are desired by the console operator (the application user). By means of user-oriented statements, the application programmer may rapidly extend his existing application program or create new applications to include interactive graphic capability.

GH20-0507

FINANCE AND SECURITIES INDUSTRIES BIBLIOGRAPHY

The purpose of this bibliography is to list and categorize IBM application publications and programs that are pertinent to finance and securities industries.

- o Section I classifies these publications and

- Among the graphic interface features supported are:
- Graphic Output
- Data generated by the application may be displayed using points, characters, vectors, or geometric shapes.
- Graphic Input
- Data may be created or modified at the console and passed to the application via the Light Pen, Programmed Function Keyboard, and Alphameric Keyboard.
- Monitoring and Control
- Intermediate results can be examined in an application. The console user dynamically controls the next function of the application program to be executed.

PLAN (Problem Language Analyzer), a Type II program, is used as a base for PLAN Graphics Support. Since it coexists with PLAN, the user has access to all of the functional capability in PLAN. PLAN Graphics Support and PLAN support both the IBM 1130 and System/360. Manual, 32 pages

GH20-0536

INSURANCE INDUSTRY BIBLIOGRAPHY

The purpose of this bibliography and the associated TPB1001,200,00,00,00,0000,60 application publications that are pertinent to the insurance industry. Section I lists these publications by application or industry. Section II contains an abstract of each publication, in form number sequence.

A periodic Bibliography of Application Publications (BAP) newsletter (GN20-1869) is published to keep the bibliography up to date. The newsletter is divided into two sections. Section I is an updated listing of application publications by application or industry. This section also includes any corrections to the bibliography and a list of superseded publications. Section II contains an abstract of each publication not included in the last published bibliography. Manual, 36 pages

GH20-0546

1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CMAP): APPLICATION DESCRIPTION MANUAL, PROG. NO. 5711-P11

This program provides the IBM 1130 user with a means of calculating the least-cost initial charge of materials to be melted to specified metallurgical and weight limits. The Charge Materials Allocation Processor uses a linear programming technique to solve the problem; the processor selects an initial charge of materials from an inventory of available items in order to minimize the total cost of the initial charge.

Since all potential users of the Charge Materials Allocation Processor may not be familiar with linear programming techniques, an input translator is designed to accept data in a format familiar to the user. An output writer presents the solution in reports designed for easy interpretation by the user. The program operates under control of the 1130 Disk Monitor System, Version 2, and utilizes the facilities of the 1130 Linear Programming System (1130 LPS) to provide the user with a powerful problem-solving tool.

This manual is an introduction to the program. It contains a general description of the program, examples of input and output data formats, a description of information requirements, and the required machine configuration.

Application Description Manual

GH20-0562

LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) APPLICATION DESCRIPTION MANUAL (5711-C01)

This program provides the user of the 1130 Disk Monitor System, Version 2, with a simple, easy to understand, easy to use means of solving LP problems.

LPS/1130 offers many improvements over LP-MOSS/1130 and will take advantage of additional core storage and input-output devices. Input data to LPS/1130 are compatible with those of LP-MOSS/1130 and LPS/360. The system contains all the procedures necessary to solve an LP problem and to perform an extensive postoptimal analysis of the problem. The system provides extensive data generation and maintenance facilities.

This manual contains a description of the system, the required machine configurations, timing estimates, and limits on problem size.

Application Program Manual, 20 pages

GH20-0576

1130 PROJECT CONTROL SYSTEM VERSION 2 (1130-CP-05X) APPLICATION DESCRIPTION MANUAL

This manual presents a brief description of a project control system, and discusses the design, features, and input/output characteristics of a computer program developed to serve as the data processing element of such a system. Although the IBM 1130 Project Control System is designed primarily for those areas of government and industry concerned with construction, repair, or maintenance, its features are such that it can meet the critical path requirements of a broad range of users, regardless of industry.

Application Program Bulletin, 22 pages

GH20-0580

IBM 1130 RIGID FRAME SELECTION PROGRAM (RFSP) (1130-EC-09X): PROGRAM DESCRIPTION AND OPERATIONS MANUAL

This manual contains a complete description of RFSP for the program users. A general outline of the application, its components and its organization is followed by detailed instructions for the utilization of the various features of the program. Sample Problems are used for illustration. The appendices describe the analysis and design methodology used in the program and provide listings of program modules, files, and tables.

This manual also contains instructions for system operators using RFSP. Error message listings in this manual are specific to RFSP. If a message or condition occurs that is not described herein, the operator should also have available the OPERATIONS MANUAL FOR THE 1130 PLAN SYSTEM (H20-0595) and the 1130 DISK MONITOR SYSTEM REFERENCE MANUAL (H20-0595) and the 1130 DISK MONITOR SYSTEM REFERENCE MANUAL (C26-3717).

Program Description and Operations Manual, 220 pages

GH20-0594

PROBLEM LANGUAGE ANALYZER (PLAN): PROGRAM DESCRIPTION MANUAL PROG. NOS. 1130-CX-25X AND 360A-CX-36X, -27X

This system provides users with application development support in the areas of:

- o User-oriented language processing
- o Dynamic job supervision
- o Diagnostic control and generation
- o Input/output control
- o Utility functions

A small subset of the PLAN system may be utilized to provide elementary development support. Subsets may be added on an incremental basis as needed until comprehensive use of the system is attained.

This manual is intended to provide rules for use of the system and technical specifications defining the scope of applicability. It is intended to serve as a user's and implementer's reference. Requirements are specified. Use of all other components is to be considered optional. Application Program Manual, 167 pages

GH20-0595

1130 PROBLEM LANGUAGE ANALYZER (PLAN) (1130-CX-25X) OPERATIONS MANUAL

This manual contains instructions for operators using the PLAN system. It also contains instructions for tailoring the system to a user's specific needs and defines system interdependencies. Information pertinent to the preparation of PLAN input, system halts, and diagnostic messages is provided.

Operations Manual, 55 pages

GH20-0598

RIGID FRAME SELECTION PROGRAM (RFSP): APPLICATION DESCRIPTION, PROG. NOS. 1130-EC-09X, 5734-EC1, 5736-EC1

The Rigid Frame Selection Program (RFSP) provides direct optimal design procedures for rigid frame construction in steel, timber, or concrete. Two- and three-hinged frames may be analyzed and designed using the programs. Cost reduction can be realized in two ways -- material inventory and design.

Procedures included in the program can be used to design members for different types of structures, using the results of analysis programs provided by the user.

The program operates under a problem-oriented language supported by the Problem Language Analyzer (PLAN), thus allowing the user to create his own input language, if he so prefers.

Application Description Manual, 60 pages

SH20-0612

RIGID FRAME SELECTION PROGRAM (RFSP) OPERATIONS MANUAL PROGRAM NUMBER 1130-EC-09X 5734-EC1 5736-EC1

This manual contains information regarding preparatory and operating procedures for IBM Rigid Frame Selection Program as applied to the 1130 and System/360.

Manual, 108 pages

GH20-0614

PLAN GRAPHICS SUPPORT FOR THE IBM 2250 ON SYSTEM/360 (OS) OR IBM 1130 PROGRAM DESCRIPTION MANUAL PROGRAM NUMBERS 360A-CX-34X AND 1130-CX-33X

The PLAN Graphics Support system provides a high level language to facilitate use of the IBM 2250 Display Unit connected to the IBM 1130 System and the System/360. An interactive graphic interface to an application program can be specified with a minimum of detailed graphic programming. The specifications for the graphic interface can be saved on external storage and later operated via the IBM 2250 to provide on-line graphic input and output, as well as monitor and control an application program.

This manual provides a general description of the system and a detailed description of input and output. Program Description Manual, 159 pages

GH20-0616

PLAN GRAPHICS SUPPORT FOR THE IBM 2250 ON THE IBM 1130 OPERATIONS MANUAL PROGRAM NUMBER 1130-CX-33X  
This manual contains instructions and procedures to set up and operate the 1130 PLAN Graphics Support system. Operations Manual, 15 pages

GH20-0617

MECHANISM DESIGN SYSTEM-KINEMATICS PROGRAM DESCRIPTION MANUAL PROGRAM NOS. 1130-EM-03X, 360A-EM-04X AND 360A-EM-05X  
The kinematic analysis program provides the linkage mechanism analysis capability which complements the IBM Mechanism Design System for Gears and Springs. A wide variety of two- and three-dimensional linkages can be analyzed with this program.

This manual provides the mechanical engineer and mechanism designer with detailed instructions on preparing input for the program.  
Program Description Manual, 120 pages

GH20-0618

MECHANISM DESIGN SYSTEM-KINEMATICS OPERATIONS MANUAL PROGRAM NOS. 1130-EM-03X, 360A-EM-04X AND 360A-EM-05X  
This manual contains information regarding preparatory and operating procedures for Mechanism Design System - Kinematics as applied to the 1130 and System/360. Operations Manual, 51 pages

GH20-0626

PROBLEM LANGUAGE ANALYZER (PLAN) USERS' INTRODUCTION PROGRAM NUMBERS 1130-CX-25X, 360A-CX-26X AND 360A-CX-27X  
This manual presents the basic ideas and facilities of the PLAN system, with references to more advanced manuals. It is organized into four chapters. The first chapter is a general introduction. Each of the others is an independent unit addressed to one group of users of the PLAN system (application users, application designers, or application programmers).  
Application Program Manual, 25 pages

SH20-0633

LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) PROGRAM DESCRIPTION MANUAL (5711-CO1)  
This manual describes how to use Linear Programming System/1130. Chapter 1 is written in tutorial form to present concepts to new users. The rest of the manual describes the system procedures and data formats.  
Program Product Manual, 110 pages

SH20-0637

LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130): OPERATIONS MANUAL PROG. NO. 5711-CO1  
This manual contains the operating instructions for generating and running LPS/1130 under the IBM 1130 Disk Monitor, Version 2.  
Program Product Manual, 32 pages

SH20-0687

1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CMAP) PROGRAM DESCRIPTION MANUAL - PROGRAM NUMBER 5711-P11  
This program provides the IBM 1130 user with a means of calculating the least-cost initial charge of materials to be melted to specified metallurgical and weight limits. The Charge Materials Allocation Processor uses a linear programming technique to solve the problem; the processor selects an initial charge of materials from an inventory of available items in order to minimize the total cost of the initial charge.

Since all potential users of the Charge Materials Allocation Processor may not be familiar with linear programming techniques, an input translator is designed to accept data in a format familiar to the user. An output writer presents the solution in reports designed for easy interpretation by the user. The program operates under control of the 1130 Disk Monitor System, Version 2, and utilizes the facilities of the Linear Programming System/1130 (LPS/1130), Program Number 5711-CO1, to provide the user with a powerful program-solving tool.

This manual contains information describing the functions and use of 1130 CMAP. Input data requirements and outputs are discussed. Each of the sixteen CMAP procedures is discussed in detail. A sample problem is presented to illustrate the use of CMAP.  
Program Product Manual

SH20-0688

1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CMAP) OPERATIONS MANUAL - 5711-P11  
This program provides the IBM 1130 user with a means of calculating the least-cost initial charge of materials to be melted to specified metallurgical and weight limits. The Charge Materials Allocation Processor uses a linear programming technique to solve the problem--the processor selects an initial charge of materials from an inventory of available items in order to minimize the total cost of the initial charge.

Since all potential users of the Charge Materials

Allocation Processor may not be familiar with linear programming techniques, an input translator is designed to accept data in a format familiar to the user. An output writer presents the solution in reports designed for easy interpretation by the user. The program operates under control of the 1130 Disk Monitor System, Version 2, and utilizes the facilities of the Linear Programming System/1130 (LPS/1130) to provide the user with a powerful problem-solving tool.

This manual contains instructions for generating a CMAP system and for running 1130 CMAP. Halts and messages are explained.  
Program Product Manual

GH20-0742

1130 CONSTRUCTION ESTIMATING: APPLICATION DESCRIPTION MANUAL PROG. NO. 5711-M61  
This manual describes the specifications and applicability of the 1130 Construction Estimating Program. It shows, by example, how the user in the construction industry can arrive at fast, accurate, computer-produced estimates of project cost with the use of this program. The estimated costs form the basis on which the contract will be awarded for a given construction project. An example of summarized output is provided.  
Application Description Manual

SH20-0797

1130 CONSTRUCTION ESTIMATING PROGRAM DESCRIPTION AND OPERATIONS MANUAL, PROG. NO. 5711-M61  
This manual gives the information necessary to implement the the Construction Estimating user commands required to cause program action; formats of input/output cards; a sample problem; program modification instructions; and machine operation instructions.  
Program Product Manual

GH20-0799

1130 COBOL GENERAL INFORMATION MANUAL (PROGRAM NUMBER 5711-CB1)  
This manual surveys the functions, capabilities and specifications of a COBOL compiler for an IBM 1130 Computing System of nominal size. The program product, IBM 1130 COBOL, operates in conjunction with the IBM 1130 Disk Monitor System to compile and execute task specifications written in a defined subset of American National Standard COBOL (formerly USA Standard COBOL). Topics discussed in this manual will enable potential system users to gauge the utility of IBM 1130 COBOL and to make preliminary installation plans.  
Program Product General Information Manual, 24 pages

SH20-0816

1130 COBOL LANGUAGE SPECIFICATIONS MANUAL, PROG. NO. 5711-CB1  
This manual describes the language rules for writing program using the COBOL language in the form approved by the American National Standards Institute. The language described incorporates a proper subset of the full American National Standard COBOL language, and is designed to be compiled on the 1130 Computing System using the 1130 COBOL Program Product. This manual is intended to be used for reference purposes only, and is not designed for self-instruction in COBOL.  
Program Product Manual

GH20-0848

INTRODUCTION TO THE 1130 CONTINUOUS SYSTEM MODELING PROGRAM II (CSMP II) PROGRAM NO. 5711-XS1  
This program provides engineers and scientists with a simple but versatile means for simulation of continuous processes. It is a "digital analog simulator" program using a block-oriented input language in which the functional blocks represent the elements and organization of an analog computer. Features of the 1130 Computing System are used to permit online experimentation with the continuous system model.

This manual contains a general description of the application, machine configuration requirements, a general systems chart, a sample problem, and a glossary.  
Program Product Manual

GH20-0878

INTRODUCTION TO PROJECT CONTROL SYSTEM II/1130 (PCSII/1130) PROGRAM NUMBER 5711-XP1  
This manual presents a brief description of a project control system, and discusses the design, features, and input/output characteristics of a computer program developed to serve as the data processing element of such a system. Although Project Control System II/1130 is designed primarily for those areas of government and industry concerned with construction, repair, or maintenance, its features are such that it can meet the critical path requirements of a broad range of users, regardless of industry.

Program Product Manual, 28 pages

GH20-0880

1130 DISTRIBUTED SYSTEM PROGRAM GENERAL INFORMATION MANUAL, PROGRAM NUMBER 1130-SV-002

This manual describes the IBM 1130 Distributed System Program (1130 DSP). The 1130 DSP provides the means for operating a multiprocessor configuration, comprised of an IBM 1130 Computing System and an IBM System/7, as a single system with distributed facilities. The 1130 DSP provides support, under the 1130 Disk Monitor System and the System/7 Modular System Programs (MSP/7), for sensor-based application programs utilizing the System/7 and its sensor-based input/output devices.

Application Program Manual, 36 pages

GH20-0889

1130 DISTILLATION PROGRAM APPLICATION DESCRIPTION MANUAL, PROGRAM NUMBER 5711-P71

This manual provides an overview of the 1130 Distillation Program, a fast, efficient, and versatile program that solves the steady-state distillation problem for a multiple feed, multiple sidedraw, multiple heat exchanger column by rigorous heat and material balances. It provides a general description of the program, methods, limits and restrictions, user requirements, input data specifications, and output, including sample problem computer printout. Minimum equipment configuration requirements and background development references are listed.

Program Product Manual

SH20-0905

1130 CSMP II PROGRAM DESCRIPTION AND OPERATIONS MANUAL, PROGRAM NUMBER 5711-XS1

This program for the IBM 1130 provides the engineer and scientist with a simple yet versatile means for simulating continuous processes. It provides a large complement of functional elements and a block-oriented language for specifying their interconnection. Features of the 1130 are used to advantage to achieve operational flexibility for on-line experimentation.

This manual contains a general description of the application, detailed programming information, operating instructions, illustrative examples, and a glossary.

Program Product Manual, 88 pages

SH20-0927

1130 COBOL OPERATIONS MANUAL, PROGRAM NUMBER 5711-CB1

This manual describes the operating procedures to be followed when either compiling programs using 1130 COBOL or executing the resultant object programs. Also described are the procedures for establishing the COBOL compiler and a COBOL Source Language Library on the 1130 systems cartridge. 1130 COBOL is a defined subset of American National Standard COBOL (formerly USA Standard COBOL).

Program Product

SH20-0928

1130 COBOL PROGRAMMER'S GUIDE - PROGRAM NUMBER 5711-CB1

No abstract available.

Program Product Manual, 180 pages

SH20-0969

PROJECT CONTROL SYSTEM II/1130, PROGRAM DESCRIPTION AND OPERATIONS MANUAL, PROGRAM NUMBER 5711-XP1

The Project Control System II/1130 serves as the data processing element of a system that helps management carry out its functions of planning and supervising projects, within a broader environment of operations and procedures. Although designed primarily for those areas of government and industry concerned with construction, repair, or maintenance, the system meets the critical path requirements of a broad range of users, irrespective of industry. It processes data from networks planned in either the precedence-diagramming method or the arrow-diagramming method. The system consists of a set of routines stored on disk. The sequence of processing is controlled by the system control card, the type of input data to be processed, and the output report requests submitted at run time. Output reports include status listings, bar charts, and basic resource and cost summarization reports. Updating capability is provided for network restructuring as well as progress reporting for in-process work items.

Program Product Manual, 116 pages

GH20-0970

MEDICAL INDUSTRIES BIBLIOGRAPHY

The purpose of this bibliography is to list and categorize IBM application publications that are pertinent to the medical industry.

A periodic Bibliography of Application Publications (BAP) Newsletter is published to keep the bibliography up to date.

Bibliography, 26 pages

GH20-0975

1130 CONSTRUCTION COST CONTROL SYSTEM APPLICATION DESCRIPTION MANUAL - PROGRAM NUMBER 5711-M62

The manual describes the 1130 Construction Cost Control System and its advantages. Included are examples of input data and the output reports generated. The programs included in this program product provide the user with an automated data processing means of producing many financial and control functions. These programs also provide for the recording of employee wage data and printing of checks and various payroll reports for all jobs currently in progress. Cost control processing allows the recording of labor, material, equipment, and subcontractor costs, and the current status of job progress is reported as actual costs measured against estimated values. In addition, printing of government reports as well as union reports is supported. It is possible to choose the method of reporting work performed as either percent complete or units of work complete. If units of work is chosen as the method of reporting performance, actual unit cost values are developed for each item defined for the job.

This manual provides the construction company executive and/or data processing management with an understanding of the capabilities and requirements of the 1130 Construction Cost Control System. It also defines the advantages realized through the installation and use of this program product in the construction business.

Program Product Manual

GH20-0983

ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP II) FOR THE IBM OPERATING SYSTEM AND 1130 COMPUTING SYSTEM: APPLICATION DESCRIPTION, PROG. NOS. 5734-EE1, 5711-EE1

These program products provide engineers and scientists with powerful tools for performing direct current (DC) and transient analysis of linear and nonlinear electrical networks, or analysis of any physical system that may be represented by a network model. The programs provide a simple, user-oriented input language for describing the network components and their interconnections.

A model library feature stores models of commonly used devices and/or circuits for recall in network problems. Through the use of improved analytic and programming techniques, much larger problems can be analyzed in less time than has heretofore been possible.

This manual contains a general description of the application, the machine configuration requirements, an overall systems chart, and a sample problem which illustrates input and output, and demonstrates the system's capabilities and techniques for problem solving.

Manual, 36 pages

SH20-1005

1130 DISTILLATION PROGRAM - PROGRAM DESCRIPTION AND OPERATIONS MANUAL - PROGRAM NUMBER 5711-P71

This manual provides the user with a description of and instructions for the use of the IBM 1130 Distillation Program, a fast, efficient, and versatile program that solves the steady-state distillation problem for a multiple feed, multiple sidedraw, multiple heat exchanger column by rigorous heat and material balances.

The manual gives a general description of the program, methods, limits and restrictions, user requirements, input data specifications, and output, including sample problem computer printout.

Minimum equipment configuration requirements and background development references are listed.

Program Product, 60 pages

SH20-1015

ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP II) FOR THE IBM OPERATING SYSTEM AND 1130 COMPUTING SYSTEMPROGRAM DESCRIPTION MANUAL, PROG. NOS. 5734-EE1, 5711-EE1

ECAP II is an IBM program which performs DC and transient analysis of linear and nonlinear electronic circuits. It provides a user-oriented input language that permits a circuit designer to describe a circuit using familiar electrical terminology.

This manual is intended for the program user (circuit designer). It contains a general description of the program's capabilities and a detailed description of the input language. A description of the mathematical techniques employed by the program is provided in the appendix.

Program product manual, 164 pages

SH20-1026

ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP II) FOR THE IBM 1130 COMPUTING SYSTEM: OPERATIONS MANUAL, PROG. NO. 5711-EE1

This manual contains procedures for installing and operating the Electronic Circuit Analysis Program II (ECAP II). Instructions for adding user-written subprograms to the system and for interpreting diagnostic messages are provided.

Program product manual, 116 pages



SH20-1045

1130 CONSTRUCTION COST CONTROL SYSTEM OPERATIONS MANUAL  
PROGRAM NUMBER 5711-M62

The 1130 Construction Cost Control System is designed to provide the construction industry with an automated cost control and payroll processing capability. The system accepts cost and completion estimates and evaluates them against original cost estimates. Costs are defined in terms of labor, material equipment, and subcontractors. The payroll functions prepare paychecks and print payroll reports. The system is organized as a set of independent programs and files to permit user selection of the functions to be installed.

This manual contains the information for preparation, installation, and operation of the program product. It is provided to aid programming and operating personnel, as well as system analysts, in understanding the system's operational requirements.  
Program Product Manual

SH20-1046

1130 CONSTRUCTION COST CONTROL SYSTEM, 5711-M62, PROGRAM  
DESCRIPTION MANUAL

The 1130 Construction Cost Control System program product gives the construction industry a computer assisted method of reporting and analyzing project costs. Each project can be defined and analyzed in terms of many work items, and costs can be reported by item as well as by job. Each work item can be reported in terms of labor, material, and/or equipment costs, and the reports show current as well as projected final costs. The contractor can monitor all costs and use the actual item costs of current projects as the basis for estimating future construction jobs.

In addition, this system of programs provides the contractor with payroll capabilities such as preparation of paychecks, payroll registers, certified payrolls, union reports, and government tax reports.

This manual provides sufficient information to enable the user to understand the functions and progress of the system, and to prepare for and install the system. The reader should be familiar with the 1130 Construction Cost Control System, Application Description Manual, (GH20-0975).

The first part of this manual contains a system-oriented description of the programs and a description of the input and output of the system. The second part contains detailed descriptions of the programs, files, input cards, and output reports. The last part of the manual contains information necessary for installation planning. Additional information regarding the system may be found in the following documents:

1130 Construction Cost Control System, Operations Manual (SH20-1045)

1130 Construction Cost Control System, System Manual (LY20-0711)

Program Product Manual

GH20-1066

PROBLEM LANGUAGE ANALYZER (PLAN) PROGRAM REFERENCE MANUAL  
PROGRAM NUMBERS 1130-CX-25X, 360A-CX-27X

This system provides users with application development support in the areas of:

- o User-oriented language processing
- o Dynamic job supervision
- o Diagnostic control and generation
- o Input/output control
- o Utility functions

A small subset of the PLAN system may be utilized to provide elementary development support. Subsets may be added on an incremental basis as needed until comprehensive use of the system is attained.

This manual is intended to provide rules for use of the system and technical specifications defining the scope of applicability. It is intended to serve as a user's and implementer's reference. Requirements are specified. Use of all other components is to be considered optional.  
Application Program Bulletin Manual, 200 pages

GH20-1129 see page 31

GH20-1132 see page 31

GH20-1144

1130 DISTRIBUTED SYSTEM PROGRAM - PROGRAM REFERENCE  
MANUAL - PROGRAM NUMBER 1130-SV-002

This manual describes the general organization and processing methods used in the IBM 1130 Distributed System Program (1130 DSP), 1130-SV-002. 1130 DSP provides the means for operating an IBM 1130-System/7 multisystem configuration as a single system with distributed facilities. This manual describes the subroutines available to programs resident in the 1130 and the macros available to programs resident in the System/7.  
Manual, 148 pages

GH20-1145

1130 DISTRIBUTED SYSTEM - OPERATIONS GUIDE  
PROGRAM NUMBER 1130-SV-002

This manual contains the operating procedures for the IBM Distributed System Program (DSP). An introductory section acquaints the user with the DSP system. Other sections describe system generation and DSP facilities.  
Manual

SH20-1242 see page 31

GH20-1245 see page 31

SH20-1252 see page 31

SH20-1253 see page 31

GH20-4045

1130 COBOL PROGRAM PRODUCT SPECIFICATIONS  
PROGRAM NUMBER 5711-CB1

The Program Product Specifications (PPS) describe the warranted specifications of the subject Program Product.  
Specifications Sheets, 2 pages

GH20-4091

LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) FUNCTIONAL  
DESCRIPTION - PROGRAM PRODUCT 5711-CO1

This Program Product Functional Description (PPFD) describes the functional capabilities of the subject Program Product, which has a Programming Service Classification of C.  
Flyer, 1 page

GH20-4092

1130 CONTINUOUS SYSTEM MODELING PROGRAM II FUNCTIONAL  
DESCRIPTION - PROGRAM PRODUCT 5711-XS1

This Program Product Functional Description (PPFD) describes the functional capabilities of the subject Program Product, which has a Programming Service Classification of C.  
Flyer, 2 pages

GH20-4137

ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP-II) FOR THE  
OPERATING SYSTEM: PROGRAM PRODUCT 5734-EE1 SPECIFICATIONS

The Program Product Specifications (PPS) describe the warranted specifications of the subject Program Product.  
Specification Sheet, 2 pages

GH20-4145

IBM 1130 AND 1800 SUBROUTINE LIBRARY MATHEMATICS (SL-MATH)  
SPECIFICATIONS - PROGRAM NUMBER 5711-XM2

The Program Product Specifications (PPS) describe the warranted specifications of the subject Program Product.  
Specification Sheet, 2 pages

GH20-4317 see page 31

GH20-4322 see page 31

GH20-4403

PROJECT CONTROL SYSTEM 11/1130 (PCS 11/1130) FUNCTIONAL  
DESCRIPTION - PROGRAM NUMBER 5711-XP1

This Program Product Functional Description (PPFD) describes the functional capabilities of the subject Program Product, which has a Programming Service Classification of C.  
Sheet, 1 page

GH20-4404

1130 DISTILLATION FUNCTIONAL DESCRIPTION - PROGRAM NUMBER  
5711-P71

This Program Product Functional Description (PPFD) describes the functional capabilities of the subject Program Product, which has a Programming Service Classification of C.  
Sheet, 2 pages

GH20-4405

1130 CONSTRUCTION ESTIMATING PROGRAM FUNCTIONAL DESCRIPTION  
PROGRAM NUMBER 5711-M61

This Program Product Functional Description (PPFD) describes the functional capabilities of the subject Program Product, which has a Programming Service Classification of C.  
Sheet, 1 page

GH20-4406

1130 CONSTRUCTION COST CONTROL SYSTEM - FUNCTIONAL  
DESCRIPTION PROGRAM PRODUCT 5711-M62

This Program Product Functional Description (PPFD) describes the functional capabilities of the subject Program Product, which has a Programming Service Classification of C.  
Functional Description Sheet, 2 pages

GH20-4421

ELECTRONIC CIRCUIT ANALYSIS PROGRAM II - (ECAP II) FOR THE  
1130 SYSTEM: PROGRAM PRODUCT FUNCTIONAL DESCRIPTION,

PROG. NO. 5711-EE1  
This Program Product Functional Description (PPFD) describes the functional capabilities of the subject Program Product, which has a Programming Service Classification of C.  
Flyer

GJD1-1789

1130 REPORT PROGRAM GENERATOR MICROFICHE LISTING  
PROGRAM NUMBER 1130-RG-007

No abstract available.  
Microfiche

GJD1-3040

MICROFICHE - SOURCE LISTING

IBM 1130 DISK MONITOR PROGRAM (VERSION 2) 1130-OS-005  
This microfiche contains source listings of program(s) referenced in title.  
Microfiche

GX20-1702

PROPORTIONAL RECORD LAYOUT FORM

The front side of this form consists of the Proportional Record Layout Form. It is suitable for card, tape, and disk records. Positional markings are 00-99 and 01-100 in decimal notation, and 00-63 and 01-64 in hexadecimal notation. The back side of the form is the record format form. This form permits record layouts to be prepared without the space limitations of positional markings. Space is also provided for reference data. These are general-purpose forms and may be used for all systems.

Padded Form, 25 Sheets, 11 by 16 1/2

GX20-1734

1130 - 1800 BINARY CARD TEMPLATE

This template provides an easy method of reading binary-coded program cards when they are punched in any type of IBM card. It is a clear plastic template of IBM Electro J 74301.

Card-Size Template

GX20-1761

MATHEMATICAL PROGRAMMING INPUT FORMSYSTEM/360 - 1130

This is a Mathematical Programming Input Form 25 sheets to a pad, 8 1/2 x 11, 3 hole punch.

Padded Form, 25 sheets, 8 1/2" x 11"

GX20-1816

150/10/6 PRINT CHART

This 11" x 18" chart is printed in green ink and provides 150 printing positions (at 10 positions per inch horizontally) for a printer carriage space-setting of 6 lines per inch. This form replaces GX20-1776 which allowed for a printing span of 144 characters. Printer charts requiring 150-character spans (3211 with 18 additional print position feature) may be prepared using this chart. This chart may be reproduced using most standard office copying machines. The grid and other preprinted information may be "dropped-out" using a green filter.

Padded Form, 11 x 18, 25 sheets

GX20-8020

FLOWCHARTING TEMPLATE

This plastic template provides cut-out shapes for drawing standard symbols used frequently in flowcharting computer systems and programs. It is enclosed in an envelope outlining definitions of symbols and use of the template. More details are given in the Data Processing Techniques manual on FLOWCHARTING TECHNIQUES (GX20-8152).

Template, 1 unit size

GX20-8096

GENERAL PURPOSE CARD PUNCHING/DATA RECORDING FORM

This form is a general purpose data recording (punching) form primarily for System/3 users.

Padded Form, 25 sheets

GX21-9092

RPG CONTROL CARD AND FILE DESCRIPTION SPECIFICATIONS FORM

This form is provided as an aid to the programmer writing an RPG program for the IBM System/3, System/360, and 1130. It is printed in reproducible green ink.

Padded form, 25 sheets

GX21-9095

RPG INDICATOR SUMMARY FORM

Form for RPG input using indicator categories of record identification, input field definition, calculation result, matching and chaining, control level, conversion, halt, user, and functions.

Padded Form, 25 sheets per pad

GX21-9129 see page 31

GX24-6599

MULTIPLE CARD LAYOUT FORM

Used to Layout Field Headings and Other Information for Data Processing Cards.

Padded Form, 8-1/2 x 11, 25 per pad

GX26-1587

IBM REFERENCE CARD, DECIMAL/HEXADECIMAL INTEGER CONVERSION CHART

This chart is used to convert decimal numbers to hexadecimal and hexadecimal numbers to decimal.

The chart covers the range of integers from 0000 to 4095. Additional instructions are provided to convert decimal and hexadecimal numbers beyond this range.

Reference Card, 8 1/2 x 29, 7 folds

GX26-1588

IBM REFERENCE CARD, DECIMAL/HEXADECIMAL FRACTION CONVERSION CHART

This chart is used to convert decimal fractions to hexadecimal and hexadecimal fractions to decimal.

The chart covers the range of fractions from 0.00000000 to 0.00075586. Additional instructions are provided to convert decimal and hexadecimal fractions beyond this range.

Reference Card, 8 1/2 x 29, 7 folds, 2 sides

GX26-3566

IBM 1130 REFERENCE SUMMARY

This publication contains condensed charts of instruction codes, tag bit codes, character codes and formats, ILSWs, DSWs, and other information useful to programmers and operators.

Handbook

GX26-3780

IBM 1130/1800 ASSEMBLER-LANGUAGE STATEMENTS SUMMARY (1130 DMS & 1800 MPX)

This publication summarizes the assembler-language statements used to write programs for the IBM 1130 Disk Monitor System, Version 2 (DM2), and the IBM 1800 Multiprogramming Executive (MPX) Operating System, Version 3. It is intended as a quick reference aid for programmers who are familiar with the assembler language as described in IBM 1130/1800 Assembler Language (GX26-3778).

Manual, 60 pages

GX26-5997

PHYSICAL PLANNING TEMPLATE IBM 1130 COMPUTING SYSTEM

This template provides a scaled representation of the physical planning specifications for IBM 1130 Computing System.

Template, 8 1/2 x 11, 2 pages

GX28-1464

COBOL CODING FORM

This form is used for COBOL coding.

Form, 8-1/2 x 11, one side, one sheet

GX28-6384

IBM FORTRAN IV REFERENCE CARD

This reference card contains FORTRAN IV information for IBM 1130 System and IBM 1800 System (1130/1800), IBM System/3, IBM System/360 Disk Operating System (DOS), IBM System/360 Operating System (G, H, G1, H Extended, and Code and Go), IBM System/360 Time Sharing System (TSS/360), IBM Call/360-OS (CALL/360), American National Standard FORTRAN, X3.9-1966, and American National Standard Basic FORTRAN, X3.10-1966. This card is intended to be used as a secondary reference. The basic program documentation is the authoritative source and will be the first to reflect any changes and improvements to the FORTRAN IV language.

Reference Card, 10 folds

GX28-7327

FORTRAN CODING FORM

This is a form for coding FORTRAN statements.

Padded Form, 8 1/2 x 14, one side, 25 sheets

GX33-8000

1130/1800 ASSEMBLER CODING FORM

A programmer's input/card punching coding form for the 1130/1800 Assembler with spaces for label, operation, F, T, Operands and Remarks

Form, 8-1/2 x 11 inches, 1 part, 25 sheets per pad.

LYB0-0637

1130 COBOL ASSEMBLY LISTING MICROFICHE - PROGRAM PRODUCT 5711-CB1

These microfiche cards contain the assembly listings for the 1130 COBOL program.

Microfiche

GYB0-0791

MICROFICHE LISTINGS FOR 1130 DISTRIBUTED SYSTEM PROGRAM PROGRAM NUMBER 1130-SV-002

Microfiche listings for program named in title.

Microfiche

GY20-0040

1130 TYPE COMPOSITION PROGRAM SYSTEM MANUAL VOLUME I PROGRAM NUMBER 1130-DP-04X

This system manual for the 1130 Type Composition Program gives detailed information so that the user can acquire a thorough knowledge of the programming logic and of techniques employed in the application.

Volume I presents flowcharts, flowchart narratives, program switch lists, and RPQ descriptions. Volume II contains program listings.

Application Program Manual, 305 pages



GY20-0041

1130 TYPE COMPOSITION PROGRAM SYSTEM MANUAL VOLUME II  
PROGRAM NUMBER 1130-DP-04X  
 The system manual for the 1130 Type Composition Program gives detailed information so that the user can acquire a thorough knowledge of the programming logic and of techniques employed in the application.  
 Volume I presents flowcharts, flowchart narratives, program switch lists, and RPQ descriptions. Volume II contains program listings.  
 Application Program Manual, 583 pages

GY20-0046

1130 ECONOMIC EVALUATION OF PETROLEUM PROJECTS PROGRAM  
SYSTEM MANUAL PROGRAM NUMBER 1130-MP-01X  
 This manual contains detailed information on programming logic. It provides flowcharts, a flowchart narrative, a switch listing, and a program listing.  
 Application Program Manual

GY20-0047

1130 CASING DESIGN PROGRAM (1130-MP-02X) SYSTEM MANUAL  
 This manual provides detailed information to assist the user in gaining a more thorough knowledge of the programming logic employed in the application of the Casing Design Program.  
 It contains a flowchart, flowchart narrative, switch listing, storage requirements, and a program listing.  
 Application Program Manual

GY20-0048

1130 DECLINE CURVE ANALYSIS PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-03X  
 This manual provides detailed information to assist the user in gaining a more thorough knowledge of the programming logic employed in the application.  
 This manual contains a flowchart, flowchart narrative, a list of internal switches used, and the program listing.  
 Application Program Manual

GY20-0049

1130 TARNER MATERIAL BALANCE PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-04X  
 This program is designed to solve the basic material balance equation for a saturated depletion type reservoir using Turner's method, to predict future recovery, gas-oil ratio, and gas production, and, if desired, to display the results in graphic form using the IBM 1627 Plotter.  
 This manual contains a flowchart, flowchart narrative, switch list, storage requirements, a program listing, and a storage map.  
 Application Program Manual

GY20-0050

1130 SCHILTHUIS MATERIAL BALANCE PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-05X  
 This program is useful in providing the petroleum engineer with an estimate of the oil present in the oil reservoir, on the basis of calculations by the Schilthuis method. Cases are considered for reservoirs with or without an initial free gas cap and with or without natural water drive.  
 This manual gives complete source deck listings with comments, flowcharts, and flowchart narratives. It will aid the user in gaining a full understanding of the function and operation of the program.  
 Application Program Manual

GY20-0051

1130 TWO-DIMENSIONAL WATERFLOODING PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-06X  
 This program allows the user to determine the pressure distribution throughout a reservoir, taking into consideration the effect of water injection. The flood front is plotted on an online plotter.  
 This manual contains program flowcharts, flowchart narrative, storage requirements, program listings, a storage map, and an appendix.  
 Application Program Manual

GY20-0052

1130 GAS DELIVERABILITY PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-07X  
 This manual contains detailed information to assist the user in gaining a more thorough knowledge of the programming logic associated with the subject application. This manual contains a flowchart, flowchart narrative, switch list, storage requirements, program listing, and a storage map.  
 Application Program Manual

GY20-0053

1130 MULTI-STAGE FLASH CALCULATION PROGRAM  
SYSTEM MANUAL - PROGRAM NUMBER 1130-MP-08X  
 This manual provides detailed information to assist the user in gaining a more thorough knowledge of the programming logic employed in the application.

This manual presents flowchart, flowchart narrative, switch listing, and program listing.  
 Application Program Manual

GY20-0054

1130 VELOCITY FUNCTIONS FROM TIME-DEPTH DATA PROGRAM  
SYSTEM MANUAL PROGRAM NUMBER 1130-MP-09X  
 This manual provides detailed information to assist the user in gaining a more thorough knowledge of the programming logic employed in the application.  
 This manual presents program flowcharts, flowchart narrative, storage requirements, program listings, and storage map.  
 Application Program Manual

GY20-0055

1130 WAVE-FRONT RAY-PATH DETERMINATION PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-10X  
 This manual provides detailed information which will assist the user in gaining a more thorough knowledge of the programming logic employed in the application.  
 This manual presents, for each run, flowcharts, flowchart narrative, a list of internal sense switches used, storage requirements, and program listings.  
 Application Program Manual

GY20-0056

1130 SYNTHETIC SEISMOGRAM PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-11X  
 This manual provides detailed information to assist the user in gaining a more thorough knowledge of the programming logic employed in the application.  
 This manual contains program flowcharts, a flowchart narrative, programming notes, switch listings, storage requirements, program listings, and a storage map.  
 Application Program Manual

GY20-0057

1130 GRAVITY AND MAGNETICS CONTINUATIONS DERIVATIVES AND RESIDUALS PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-12X  
 This manual provides detailed information to assist the user in gaining a more thorough knowledge of the programming logic employed in the program.  
 This manual contains flowcharts, a flowchart narrative, switch listings, and program listings.  
 Application Program Manual

GY20-0058

1130 THEORETICAL GRAVITY OF A 3-D MASS PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-13X  
 This manual provides detailed information to assist the user in gaining a more thorough knowledge of the programming logic employed in the application.  
 This manual presents a flowchart, flowchart narratives, switch listings, program notes, storage requirements, program listings, and core storage map.  
 Application Program Manual

GY20-0059

1130 QUANTITATIVE LOG ANALYSIS PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-14X  
 This manual provides detailed information to assist the user in gaining a more thorough knowledge of the programming logic employed in the application.  
 This manual presents flowcharts, flowchart narrative, switch listings, storage requirements, program listings, storage map, and glossary.  
 Application Program Manual

GY20-0060

1130 DIPMETER PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 1130-MP-15X  
 This manual provides detailed information to assist the user in gaining a more thorough knowledge of the programming logic employed in the application.  
 This manual contains a flowchart, flowchart narrative, a list of internal switches used, and program listings.  
 Application Program Manual

GY20-0064

CIVIL ENGINEERING COORDINATE GEOMETRY (COGO) FOR IBM 1130  
SYSTEM MANUAL - PROGRAM NUMBER 1130-EC-02X  
 COGO is designed specifically for civil engineering geometry problems. Engineers state problems in familiar vocabulary, and the statement input generates the problem solution. Programming, in the usual sense, is unnecessary, and no intermediate programming is needed.  
 The program is written for an 8K card 1130 and operates under the 1130 Disk Monitor System, Version 2.  
 This manual describes the internal structure of the COGO system programs.  
 Manual, 116 pages

GY20-0078

1130 ROUTE ACCOUNTING FOR DAIRIES AND BAKERIES SYSTEM MANUAL  
PROGRAM NUMBER 1130-DX-01X

This manual contains detailed information concerning the program logic of each program in the IBM 1130 Route Accounting System. Included for each program is a program flowchart, a flowchart narrative, and an assembled program listing. The programming concepts are described.  
(RESTRICTED DISTRIBUTION)

Application Program Manual, 210 pages

GY20-0081

STRUCTURAL ENGINEERING SYSTEM SOLVER (STRESS) FOR THE  
IBM 1130, MODEL 2B VERSION 2 SYSTEM MANUAL  
PROGRAM NUMBER 1130-EC-03X

This program is designed specifically for the solution of structural engineering problems. It uses a problem-oriented input language which enables the structural engineer to communicate with the computer even though he has no previous programming experience.

The program can analyze structures with prismatic members in two or three dimensions, with either pinned or rigid joints, and subjected to concentrated or distributed loads, support motions, or temperature effects.

The program is written for an 8K card 1130, Model 2, with disk, and operates under the 1130 Monitor system.

This manual provides detailed information to help the user understand the internals of 1130 STRESS. It is designed to be used with the program listings for 1130 STRESS.

Application Program Manual, 180 pages

GY20-0089

1130 DATA PRESENTATION SYSTEM, VERSION 2: SYSTEM MANUAL  
VOLUME I - FLOWCHARTS AND NARRATIVES, PROG. NO. 1130-CX-14X

An application programming system designed to provide the 1130 user with graphic data processing programming support.

It is applicable to such varied application areas as engineering analysis, performance reports, efficiency studies, quality control and data analysis.

Application Program Manual

GY20-0091

1130 PROJECT CONTROL SYSTEM VERSION 2 SYSTEM MANUAL  
PROGRAM NUMBER 1130-CP-05X

This manual describes the routines and subroutines that make up the IBM 1130 Project Control System. It is divided into the seven logical phases of the system and is intended primarily for the programmer who wishes to gain an understanding of the programming design of the 1130 PCS. It provides the necessary information for maintaining and modifying the system.

Application Program Manual, 120 pages

GY20-0093

1130 STATISTICAL SYSTEM (1130-CA-06X) SYSTEM MANUAL

This manual provides detailed information on the logic used in each program of the 1130 Statistical System.

Application Program Manual, 126 pages

GY20-0103

1130 NUMERICAL SURFACE TECHNIQUES AND CONTOUR MAP PLOTTING  
VERSION 2 SYSTEM MANUAL, PROG. NO. 1130-CX-11X, 38X

This manual provides detailed information to assist the user in gaining a more thorough knowledge of the programming logic employed in the application. A flowchart, a flowchart narrative, a program listing, a storage map, and a switch listing (where applicable) are given for each program.

Manual, 540 pages

GY20-0109

1130 MECHANISM DESIGN SYSTEM - GEARS AND SPRINGS, VERSION 2  
SYSTEM MANUAL VOL. I - FLOWCHARTS & NARRATIVES (1130-EM-01X)

A set of programs for the mechanical engineer involved in mechanism design or analysis. The descriptive input furnished by the engineer generates design documentation necessary for evaluation and manufacture of these components.

The program performs the design calculations for spur and helical gears, compressions, extension and torsion springs. The design restrictions and functional requirements are provided by the engineer as program input. If the requirements can be met within these restrictions, the engineer receives design data necessary for manufacturing and inspecting the component, as well as additional calculated data necessary to evaluate the design. This is a plan series program.

Application Program Bulletin

GY20-0110

1800/1130 CONTROL OPTIMIZATION PROGRAM (COP/1800-1130)  
VERSION 2 (1800-CC-01X) - SYSTEM MANUAL

This manual provides detailed information to assist the user in gaining a more thorough knowledge of the mathematical methods and programming logic employed in the program.

The manual contains: a description of the overall

organization of the program; a description of the linear programming (LP) algorithm employed; a list of program switches used; program flowcharts; and flowchart narrative.  
Manual, 180 pages

GY20-0141

1130 LINEAR PROGRAMMING - MATHEMATICAL OPTIMIZATION  
SUBROUTINE SYSTEM (1130-LP-MOSS) (1130-CO-16X) SYSTEM MANUAL

This system manual describes the Linear Programming - Mathematical Optimization Subroutine System (LP-MOSS) for the IBM 1130. Chapter 1 gives a general introduction to the manual. The remaining chapters provide details on the system structure, describe programming conventions, and give reference material pertaining to the system.

Application Program Manual, 652 pages

GY20-0216

IBM 1130 AUTOMATED CHEMISTRY PROGRAM (1130 ACP) FOR THE 1080  
DATA ACQUISITION SYSTEM (1130-UH-13X) - SYSTEM MANUAL

This manual provides detailed information to assist the user in gaining a more thorough knowledge of the programming logic employed in the application. Flowchart narratives, flowcharts, listings of switches, and the program listings are included in this publication.

Manual

GY20-0316

RIGID FRAME SELECTION PROGRAM (RFSP): SYSTEM MANUAL VOLUME 1  
PROG. NOS. 1130-EC-09X, 5734-EC1, 5736-EC1

This manual is intended to serve as a programmer's guide to RFSP. Flowcharts and flowchart narratives are given for all modules. The flowcharts are written in a descriptive fashion and are intended to provide a cross-reference between the program functions and pertinent material in the RFSP PROGRAM DESCRIPTION AND OPERATIONS manual (GH20-0580). A comprehensive array of tables is included to describe the PLAN (Problem Language Analyzer) Dictionary used by RFSP. This manual presumes a knowledge of the 1130 RFSP and PLAN Program Description Manuals, the FORTRAN language and the 1130 Monitor System.

Volume 2 of the rigid Frame Selection Program System Manual has a separate form number (Y20-0366) and contains the Assembly Listings for the program.

System Manual, Volume 1, 425 pages

GY20-0343

1130 PROBLEM LANGUAGE ANALYZER (PLAN): SYSTEM MANUAL VOLUME  
I - FLOWCHART NARRATIVES, PROG. NO. 1130-CX-25X

This manual contains detailed information in the form of flowchart narratives for the 1130 PLAN System. With this, the user should gain a better understanding of the logic of the system.

System Manual, 204 pages

GY20-0344

1130 PROBLEM LANGUAGE ANALYZER (PLAN): SYSTEM MANUAL VOLUME  
II - FLOWCHARTS, PROG. NO. 1130-CX-25X

This manual contains flowcharts of the 1130 Problem Language Analyzer. This material when used in conjunction with the material contained in the System Manual and with the program listings will allow the user to gain a better understanding of the logic of the system.

System Manual, 425 pages

GY20-0366

IBM 1130 RIGID FRAME SELECTION PROGRAM (RFSP)  
VOLUME 2 SYSTEM MANUAL PROGRAM NUMBER 1130-EC-09X

This manual provides the program compilation listings for the IBM 1130 Rigid Frame Selection Program. The flowcharts and narratives for this program will be found in IBM 1130 RIGID FRAME SELECTION PROGRAM (RFSP) SYSTEM MANUAL - VOLUME 1 (Y20-0316).

System Manual

GY20-0395

PLAN GRAPHICS SUPPORT FOR THE IBM 2250 ON THE IBM 1130  
- SYSTEM MANUAL, PROG. NO. 1130-CX-33X

This publication describes the internal logic of the IBM 1130/2250 PLAN GRAPHIC SUPPORT. The contents are intended for use by persons involved in program maintenance, and for system programmers who are altering the program design. The information is not necessary for the use and operation of the program.

Application Programming Manual, 187 pages

GY20-0396

1130 MECHANISM DESIGN SYSTEM - KINEMATICS: SYSTEM MANUAL  
VOLUME I - FLOWCHARTS AND FLOWCHART NARRATIVES  
PROGRAM NUMBER 1130-EM-03X

This manual provides detailed program information to assist the user in gaining a complete understanding of the application.

This manual has three main sections. The first is the system description section where the topological model, the communication area, and data file formats are described. The next section gives program descriptions and includes

program flowcharts and flowchart narratives.

The third section gives a description of the algorithms employed or a reference where more detailed information is available.

Application Programming Manual, 191 pages

GY20-0397

1130 MECHANISM DESIGN SYSTEM - KINEMATICS SYSTEM MANUAL VOLUME II - COMPILATION LISTINGS, PROG. NO. 1130-EM-03X  
This manual provides the program compilation listings for 1130-EM-03X.  
Compilation Listings

GY20-0434

1130 MECHANISM DESIGN SYSTEM GEARS AND SPRINGS VERSION 2, SYSTEM MANUAL VOLUME II - COMPILATION LISTINGS  
PROGRAM NUMBER 1130-EM-01X  
This manual provides compilation listings for the 1130 Mechanism Design System - Gears and Springs.  
Application Programming Manual, approx. 100 pages

GY20-0436

1130 DATA PRESENTATION SYSTEM, VERSION 2 SYSTEM MANUAL VOLUME II - ASSEMBLY LISTINGS, PROG. NO. 1130-CX-14X  
This manual provides assembly and compilation listings for the 1130 Data Presentation System.  
Application Programming Manual, approx. 200 pages

LY20-0438

LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) COMPILATION/ASSEMBLY LISTINGS MANUAL  
PROGRAM NUMBER 5711-C01  
This manual contains the compilation/assembly listing for the distributed portions of the Linear Programming System/1130.  
Application Program Manual, 450 pages

LY20-0445

LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) SYSTEM MANUAL  
PROGRAM NUMBER 5711-C01, FEATURE CODE 8806  
This system manual describes the Linear Programming System/1130 for use on the IBM 1130 running under the IBM 1130 Disk Monitor System, Version 2. Chapter 1 gives a general introduction to the manual. The remaining chapters provide details on the system structure, describe programming conventions, and give reference material pertaining to the system.  
Program Product Manual, 592 pages

LY20-0468

IBM 1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CMAP) SYSTEM MANUAL - VOLUME I  
PROGRAM NUMBER 5711-P11 FEATURE CODE 8801  
This program provides the IBM 1130 user with a means of calculating the least-cost initial charge of materials to be melted to specified metallurgical and weight limits. The 1130 Charge Materials Allocation Processor uses a linear programming technique to solve the problem; the processor selects an initial charge of materials from an inventory of available items in order to minimize the total cost of the initial charge.

Since all potential users of the 1130 Charge Materials Allocation Processor may not be familiar with linear programming techniques, an input translator is designed to accept data in a format familiar to the user. An output writer presents the solution in reports designed for easy interpretation by the user. The program operates under control of the 1130 Disk Monitor System, Version 2, and utilizes the facilities of the Linear Programming System/1130 (LPS/1130) to provide the user with a powerful problem-solving tool.

This system manual describes the 1130 Charge Materials Allocation Processor. It provides interface with Linear Programming System/1130 (LPS/1130); describes internal programming conventions and gives reference material pertaining to CMAP.

Compilation listings for each CMAP subroutine and program are contained in Volume 2 of the CMAP System Manual (Y20-0469).  
System Manual

LY20-0469

IBM 1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CMAP) SYSTEM MANUAL - VOLUME II COMPILATION LISTINGS  
PROGRAM NUMBER 5711-P11 FEATURE CODE 8801  
This manual contains the compilation listings for the 1130 Charge Materials Allocation Processor. The flowcharts and narratives are contained in Volume I (Y20-0468).  
System Manual

LY20-0557

1130 CONSTRUCTION ESTIMATING PROGRAM SYSTEM MANUAL  
PROGRAM NUMBER 5711-M61  
This manual presents the detailed system design information for the 1130 Construction Estimating program. This information includes the core layout for data common to

all programs, the specifications for the disk files, the program narratives, and program flowcharts.  
System Manual, Licensed Program Product Manual, 164 pages

LY20-0636

1130 CONTINUOUS SYSTEM MODELING PROGRAM II (CSMP II) SYSTEM MANUAL, PROGRAM NUMBER 5711-XS1, FEATURE CODE 8009  
This manual provides detailed information to help the user gain a more thorough knowledge of the programming logic employed in the application.

It presents flowcharts, flowchart narratives, and a list of program variables and internal switches.  
Program Product Manual, 44 pages

LY20-0639

1130 COBOL PROGRAM LOGIC MANUAL - PROGRAM NUMBER 5711-CB1  
FEATURE CODE 8011  
This manual describes internal components of IBM 1130 COBOL, a program for compiling and executing COBOL statements on an IBM 1130 Computing System. (Program Product users employ a COBOL subset conforming to specifications approved by the American National Standards Institute.) The manual's contents are essential to maintaining or altering the program product, but are not required for guidance in the operation and use of the system.  
Program Logic Manual, 376 pages

LY20-0659

PROJECT CONTROL SYSTEM II/1130 SYSTEM MANUAL, VOLUME 2, LISTINGS - PROGRAM NUMBER 5711-XP1, FEATURE NUMBER 8015  
This manual contains the source listings, in alphabetic sequence, for Project Control System II/1130.  
Program Product, 188 pages

LY20-0662

PROJECT CONTROL SYSTEM II/1130, SYSTEM MANUAL, VOLUME 1  
PROGRAM NUMBER 5711-XP1, FEATURE CODE 8014  
This manual describes the routines and subroutines that make up the IBM Project Control System II/1130. It is divided according to the logical phases of the system and is intended primarily for the programmer who wishes to gain an understanding of the design of the program. It provides the necessary information for maintaining and modifying the system.  
Program Product Manual, 148 pages

LY20-0677

1130 DISTILLATION PROGRAM - SYSTEM MANUAL  
PROGRAM NUMBER 5711-P71 - FEATURE NUMBER 8013  
This manual describes the program logic in detail. The substance of each subprogram comprising the 1130 Distillation Program is discussed with respect to its purpose and techniques of solution. Cross-references between subprograms are given. Also included are the program listings and flowcharts, which are cross-referenced in the program narratives. A lexicon of the important terms used in the programs as well as a program switch listing are included. Finally, the equations used in the calculations are grouped in the Appendixes.  
Program Product Manual 480 pages

LY20-0692

ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP II) FOR THE IBM OPERATING SYSTEM AND 1130 COMPUTING SYSTEM - SYSTEM MANUAL  
FEATURE NUMBER 8095 - PROGRAM NUMBERS 5734-EE1, 5711-EE1  
This manual contains detailed information useful to a system or an application programmer interested in making program modifications to ECAP II. This manual includes:  
o General organization of the program  
o Description of functions performed by each program phase and subroutine  
o Program logic flowcharts  
o Description of variables passed between programs and subroutines  
o Data formats and file organization  
Program product manual, 448 pages

GY20-0709

1130 PROJECT CONTROL SYSTEM VERSION 2, SYSTEM MANUAL: LISTINGS - PROGRAM NUMBER 1130-CP-05X  
This manual contains the compiler listings (and, for a few routines, assembler listings) for the 1130 Project Control System, Version 2, Modification Level 2. The manual should be used in conjunction with the Version 2 System Manual (GY20-0091).  
Application Program Manual, 188 pages

LY20-0711

1130 CONSTRUCTION COST CONTROL SYSTEM 5711-M62  
SYSTEM MANUAL FEATURE NUMBER 8003  
The 1130 Construction Cost Control System provides the user with an automated data processing means of producing many financial and control functions. This program product also provides for the recording of employee wage data and printing of checks and various payroll reports for all jobs

currently in progress.

The manual describes the logic flow of the programs included in the 1130 Construction Cost Control System. A complete set of program listings is provided together with cross reference tables to enable the user to identify the relationships existing among input cards, data files, and programs for the purpose of understanding the system. The primary purpose of the manual is to provide the user with sufficient information to make modifications to the programs, files, or data cards if he so desires. Licensed Program Product Manual

GY20-0786

IBM 1130 DISTRIBUTED SYSTEM PROGRAM LOGIC MANUAL  
PROGRAM NUMBER 1130-SV-002

This manual contains flowcharts and descriptions of the program logic of the 1130 resident subroutines and System/7 resident macros which make up the IBM 1130 Distributed System Program (1130 DSP). Application Program Manual, 148 pages

LY20-0835 see page 31

LY20-0837 see page 31

GY21-0010

IBM 1130 RPG PROGRAM LOGIC MANUAL, PROG. NO. 1130-RG-00'

A Program Logic Manual describes the internal design or logic of the subject program. These manuals are intended for persons involved in program maintenance and system programmers who are altering the program design. Program logic information is not necessary for the operation of the program; therefore, distribution of these publications is limited to persons with maintenance and alteration requirements.

Systems Reference Library Manual, 194 pages

GY26-3620

IBM 1130/1800 CARD/PAPER TAPE PROGRAMMING SYSTEMS, PROGRAM LOGIC MANUAL

This publication describes the internal logic of the 1130/1800 Card and Paper Tape Programming Systems: Assembler, FORTRAN Compiler, Library Subroutines, and Utility Routines. It is intended for use by persons involved in program maintenance, and system programmers who are altering the program design. Program logic information is not necessary for the use and operation of the program; therefore, distribution of this publication is limited to those with the aforementioned requirement. This volume covers program numbers: 1130/1800-UT-001/2, 1130-LM-001/2, 1800-LM-003/4, 1130-SP-001/2, 1130-LM-001/2, 1800-LM-003/4, 1130-SP-001/2, 1800-AS-005/6, 1130-FO-001/2, 1800-FO-007/8

Program Logic Manual, 206 pages

GY26-3714

IBM 1130 DISK MONITOR SYSTEM, VERSION 2, PROGRAM LOGIC MANUAL, PROG. NOS. 1130-OS-005,006

This publication describes the internal logic of the IBM 1130 Disk Monitor Programming System, Version 2. The contents are intended for use by persons involved in program maintenance, and for system programmers who are altering the program design. Program logic information is not necessary for the use and operation of the program; therefore, distribution of this manual is limited to those who are performing the aforementioned functions. Program Logic Manual, 354 pages

GY26-3752

IBM 1130 DISK MONITOR SYSTEM (VERSION 1) PROGRAM LOGIC MANUAL, PROG. NOS. 1130-OS-001,002

This publication describes the internal logic of the IBM 1130 Monitor Programming System. The contents are intended for use by persons involved in program maintenance and for system programmers who are altering the program design. Program logic information is not necessary for the use and operation of the program; therefore, distribution of this manual is limited to those who are performing the aforementioned functions.

Program Logic Manual, 264 pages

GY27-7174

IBM 1130/2250 GRAPHIC SUBROUTINE PACKAGE FOR BASIC FORTRAN IV - PROGRAM LOGIC MANUAL PROGRAM NUMBER 1130-LM-008

A Program Logic Manual describes the internal design or logic of the subject program. These manuals are intended for persons involved in program maintenance and system programmers who are altering the program design. Program logic information is not necessary for the operation of the program; therefore, distribution of these publications should be limited to persons with maintenance and alteration requirements.

Program Logic Manual

GY30-1001

IBM 1130 REMOTE JOB ENTRY WORK STATION PROGRAM, PROGRAM LOGIC MANUAL PROGRAM NUMBER 1130-CQ-009

This Program Logic Manual describes the internal logic of the 1130 RJE Work Station Program under Version 2 of the IBM 1130 Disk Monitor System. This publication is intended for use by personnel involved in program

maintenance and by system programmers who are altering the system design. Program logic information is not necessary for the use and operation of the program; therefore, distribution of this publication is limited to persons with program maintenance or modification responsibilities.

Program Logic Manual, 92 pages

GY34-0002

1130 MTCA, IOCS SUBROUTINES PLM, PROG. NOS. 1130-OS-005, 006

This publication describes the internal logic of the IBM 1130 Computing System Multiple Communications Adapter (MTCA) I/O Control System (IOCS) Subroutines. The package is part of the IBM 1130 Disk Monitor Programming System, Version 2. The controls are intended for use by persons involved in program maintenance and for system programmers who are altering the program design. Program Logic information is not necessary for the use and operation of the program; therefore, distribution of this manual is limited to those who are performing the aforementioned functions. This document should be used in conjunction with the program listings.

Systems Reference Library Manual

S2C0-0151

1130/1800 EARLY WARNING MICROFICHE

Early Warning information consists of the most current service information available which has been extracted from the RETAIN System and reproduced on microfiche. Microfiche

S2C0-0301

MICROFICHE - EARLY WARNING PRODUCTS CSP-SCP FILE

Early Warning information consists of the most current service information available which has been extracted from the RETAIN System and reproduced on microfiche.

G310-0012

IBM WORLD TRADE MARKETING PUBLICATIONS KWIC INDEX

This KWIC (Key-word-in-context) Index lists publications generally available for distribution or sale to users of IBM data processing products and services. It is the World Trade edition of the IBM Marketing Publications KWIC Index. Manual, 168 pages

G320-1244

CUSTOMER EDUCATION COURSE CATALOG

This three-section catalog has been prepared to provide users of IBM data processing equipment with information on the various courses, curriculums, and education materials available to them through IBM Customer Education.

- A. GENERAL INFORMATION: This covers basic enrollment information, terms and conditions of education programs and agreements, location of various education centers and availability of special purpose programs such as
  - o Time payments
  - o On-site courses
  - o Tailored courses (RPQ) Request Price Quotation)
  - o Computerized education configurators
  - o Education Consulting Services
- B. EDUCATION PLANNING GUIDES: Since it is advantageous to develop an overall education plan that is in line with application implementation or personnel requirements, these flow chart aids have been developed to help the user match the curriculum with his requirements. In this fashion, the user should be able to project his education schedule with the related tuition for budgetary purposes.
- C. DETAILED COURSE DESCRIPTIONS: This section contains the courses offered to users of IBM data processing equipment. The descriptions cover the intended audience, as well as other relevant information. The descriptions have been written to give the reader as much detail as possible to help him select the proper course(s) from the broad spectrum offered.

As can be seen in the Table of Contents, the courses are cross-indexed in three sequences, alphabetic, course code and curriculum.

This catalog obsoletes the following publications in the "IBM Education ... a course of action" series, also known as Course Selection Guide modules.

G520-2327	Systems Science Education
G520-2329	The Operating System
G520-2330	DOS/TOS
G520-2334	1130-1800-System/7
G520-2335	S/360 Model 20 and Unit Record
G520-2336	Industry Applications
G520-2469	Operating System Curriculum Planning

Catalog, 650 pages

G320-1621

IBM MARKETING PUBLICATIONS KWIC INDEX

This reference document contains general information about publications in the Systems Library. It contains three sections as follows:

- 1) alphabetic KWIC index by titles
- 2) index by machine type number
- 3) price list in form number sequence (omitting the first character of the order number)

Reference Index, 192 pages

G520-2326

IBM EDUCATION - A COURSE OF ACTION - SELF STUDY CATALOG

This book covers the full spectrum of self-study courses to augment the classroom courses offered by IBM. It also contains education materials that may be purchased to supplement a data processing education library. The fold out section of the back cover contains an Education Materials Order Form.  
Catalog, 96 pages

G520-2327

IBM EDUCATION - A COURSE OF ACTION SYSTEMS SCIENCE EDUCATION

General course description of Basic Programmer Training, Systems Science Education (Parts I and II) and the Advanced Systems Science courses.  
Catalog, 12 pages

GH20-1129

EPIC: SOCRATES STUDENT SCHEDULING SYSTEM FOR EDUCATIONAL INSTITUTIONS: GENERAL INFORMATION, PROGRAM NUMBER 5735-E91  
The EPIC: SOCRATES program product represents a comprehensive systems approach to the student scheduling tasks of educational institutions. The package consists of a series of interrelated programs which provide for the allocation of educational resources required for the generation of the master schedule of classes, assignment of students to the master schedule classes, and the update of these records with changes required to the assigned classes. The features provided by the program cover the needs of a variety of educators, from those employing traditional scheduling patterns to those who have gone to highly flexible, modular schedules.

GH20-1132

EPIC: BUDGET/FINANCE FINANCIAL ACCOUNTING SYSTEM FOR EDUCATIONAL INSTITUTIONS: GENERAL INFORMATION, PROGRAM NUMBER 5735-E93

The EPIC: Budget/Finance program product is a system providing budgetary, financial, and encumbrance accounting capabilities for educational institutions. The system is designed to accommodate users of United States Office of Education publications in the area of schools accounting. In particular, it is designed to facilitate implementation of concepts such as planning, programming, budgeting system (PPBS) by the user. Most educational institutions can utilize these programs due to the flexibility of account capabilities provided.

SH20-1242

EPIC: SOCRATES STUDENT SCHEDULING SYSTEM FOR EDUCATIONAL INSTITUTIONS: USER'S GUIDE, PROGRAM NUMBER 5735-E91  
EPIC: SOCRATES offers a comprehensive approach to the student scheduling tasks of educational institutions. This package of interrelated programs provides for the allocation of educational resources to produce a master schedule of classes the assignment of students to the master schedule, and the updating of scheduling records with changes required to the assigned sections. The features provided by the program product cover the needs of a variety of educators, from those employing traditional scheduling patterns to those who have gone to highly flexible, modular schedules.

GH20-1245

EPIC: SOCRATES STUDENT SCHEDULING SYSTEM FOR EDUCATIONAL INSTITUTIONS: OPERATIONS GUIDE, PROGRAM NUMBER 5735-E91  
The EPIC: SOCRATES program product employs a comprehensive systems approach to the student scheduling tasks of educational institutions. A package of interrelated programs provides for the assignment of students to the master schedule of classes, and the updating of scheduling records with changes required to the assigned classes. The features provided by the program cover the needs of a variety of educators, from those employing traditional scheduling patterns to those who have gone to highly flexible, modular schedules.

SH20-1252

EPIC: BUDGET/FINANCE OPERATIONS GUIDE, PROGRAM NUMBER 5735-E93

The EPIC: Budget/Finance program product employs a comprehensive systems approach to the budgetary and financial control tasks of educational institutions. The package consists of a series of interrelated programs which provide for establishment of and changes to budgetary account controls, and also provides for detailed control of the daily accounting transactions that impact budgeted funds. All aspects of the educational institution's financial structure, such as purchasing, cafeteria, and payroll, may feed transaction data into the system. The features provided by the program cover a variety of accounting needs, among which are line items, historical recap, budgetary projection, and flexible reporting.

SH20-1253

EPIC: BUDGET/FINANCE USER'S GUIDE, PROGRAM NUMBER 5735-E93

The EPIC: BUDGET/FINANCE Account system is based on traditional accounting theory and the Planning Programming, Budgeting System (PPBS). It processes accounting and budgetary transactions affecting the status of master account records on magnetic disk. Computer printed reports trace the effects of transactions during the fiscal year and periodically show the status of the master accounts. The user has many options at his disposal. These include the ability to define an account code structure of up to 12 levels tailored to his particular needs. Reports may be printed in up to five individually defined control sequences, in addition to the standard sequence.

GH20-4317

EPIC: SOCRATES STUDENT SCHEDULING SYSTEM: SPECIFICATIONS, PROGRAM NUMBER 5735-E91  
This sheet describes the warranted specifications of the Program Product, EPIC: SOCRATES Student Scheduling System.

GH20-4322

EPIC: BUDGET/FINANCE: SPECIFICATIONS, PROGRAM NUMBER 5735-E93  
This sheet describes the warranted specifications of the program EPIC: BUDGET/FINANCE.

GX21-9129

RPG DEBUGGING TEMPLATE

This template is a quick tool for programmers debugging RPG.

LY20-0835

EPIC: SOCRATES STUDENT SCHEDULING SYSTEM FOR EDUCATIONAL INSTITUTIONS: LOGIC MANUAL, PROGRAM NUMBER 5735-E91

EPIC: SOCRATES consists of a series of interrelated programs which address educational resource-allocation tasks and student-scheduling tasks. The program product is designed to operate under OS or DOS, on a System/360 or /370, or to operate on an IBM 1130 or the System/3.

This manual presents the internal logic of the SOCRATES programs in the form of flowcharts and narrative. The content is specifically intended for systems engineers, analysts, and installation programmers who may be modifying the system presented herein or converting from an earlier SOCRATES development. The manual is not required for operating.

LY20-0837

EPIC: BUDGET/FINANCE LOGIC MANUAL, PROGRAM NUMBER 5735-E93

The EPIC: Budget/Finance program product uses a comprehensive systems approach to the budgetary and financial control tasks of educational institutions. The package consists of a series of interrelated programs which provide for establishment of and changes to budgetary account controls, and for detailed control of the daily accounting transactions that impact budgeted funds. All aspects of the educational institution's financial structure, such as purchasing, cafeteria, and payroll, may feed transaction data into the system. The features provided by the programs cover a variety of accounting needs, among which are line items, historical recap, budgetary projection, and flexible reporting.

## New Abstracts

GA27

GA21-9028

### IBM 357/1030/2790 BADGE SPECIFICATIONS

This publication provides the specifications for the manufacture of laminated and embossed badges for the IBM 357 and IBM 1030 Data Collection Systems and the IBM 2790 Data Communication System. Included in this publication are: dimensions, a material listing, suggested laminating procedures, quality control measures, and punched-hole registration-checking procedures.

Individual differences in manufacturing equipment may require some modification to time, temperature, and pressure specification; test badges should be manufactured and checked to provide a basis for possible modifications.  
SRL, 16 pages

GA24-3090

### IBM TELEPROCESSING SYSTEMS SUMMARY

This manual contains brief introductory descriptions of IBM teleprocessing units and systems. It provides an overview of these products primarily for executive and supervisory personnel involved in the decision making and planning of data processing systems.

Publications providing detailed information on these devices are listed at the end of each device description. They are also listed in the Systems Reference Library manuals, IBM Teleprocessing Bibliography, GA24-3089, and the IBM System/360 Bibliography, GA22-6822.

Information on IBM Line Adapters and common-carrier supplied communications facilities is contained in Appendix A. Appendix B is a summary of IBM System/360 programming support available for teleprocessing systems.

It is assumed that the reader of this manual has a basic familiarity with data processing systems and data communications concepts.  
Systems Reference Library

GA24-3435

### PLANNING AND INSTALLATION OF A DATA COMMUNICATION SYSTEM USING IBM LINE ADAPTERS

This reference publication contains information, for systems engineers and installation planning engineers, on the planning and installation of data communications systems that use IBM Line Adapters (modems). A brief introduction to data communication and to the general purposes and functions of line adapters is presented. Included is technical information applicable to an in-plant user-installed data communications system, and to the local facilities of common carriers. Specifications and requirements are provided for each IBM Line Adapter type, including those intended for limited-distance use only, and for those designed to operate over unlimited-distance common-carrier lines. A Glossary is included as an appendix.

Prior knowledge of data communications systems is helpful, but not essential.

For a description of the switched network, automatic answering, and automatic call origination features of the IBM 1200 Bit-per-Second Line Adapter, this manual refers to SYSTEMS manual, IBM 3872 Modem User's Guide, GA27-3058. General Information, 74 pages

GA27-3004

### GENERAL INFORMATION - BINARY SYNCHRONOUS COMMUNICATIONS

This publication describes the Binary Synchronous Communications (BSC) procedures in general terms. The major topics covered are: BSC concepts (including transmission codes and data-link operation), message formats, additional data-link capabilities, and planning considerations.

Systems Reference Library Manual, 36 pages

GA27-3005

### IBM 2780 DATA TRANSMISSION TERMINAL - COMPONENT DESCRIPTION

This Component Description manual describes the principles of operation of the IBM 2780 Data Transmission Terminal. The data-link control characters, code structures, timeouts, and throughput rates associated with the Binary Synchronous method of transmission are described.

The communications facilities, data sets, and special features available for this Tele-processing terminal are also discussed.

Systems Reference Library Manual, 78 pages

GA27-3006

### IBM REMOTE MULTIPLEXERS AND COMMUNICATIONS TERMINALS

#### INSTALLATION MANUAL - PHYSICAL PLANNING

This publication contains physical planning information for IBM Remote Multiplexers and Communications Terminals. Included are physical specifications, electrical and environmental requirements, cabling requirements, and available communications facilities.

Systems Reference Library Manual, 64 pages

GA27-3013

### SYSTEM COMPONENTS: IBM 2770 DATA COMMUNICATION SYSTEM

This System Components manual describes the principles of operation of the component units of the IBM 2770 Data Communication System. The data link control characters, code structures, and timeouts associated with the Binary Synchronous method of transmission used by the 2770 are described. Also described are the operating characteristics of the various input/output devices and the specifications of the input/output media. Special features and specify features for all system units are included.

This manual comprises descriptions of individual units within the 2770 Data Communication System.  
Systems Reference Library Manual

GA27-3014

### IBM 2770 SYSTEM SUMMARY

The IBM 2770 Data Communication System is a modular, general-purpose terminal system that communicates either batched data or inquiry-response information, or a combination of both, with another 2770, other binary-synchronous communications terminals, and System/360 or System/370.

As an introduction to the system, this manual points out the design highlights including optional media configurations, basic features and special features, applications, and throughput capabilities. The manual also acquaints the reader with: (1) the organization of the system - the control unit and its relationship with input and output devices, and (2) programmed, manual, and automatic (built-in) operation of the system.  
Systems Reference Library Manual

GA27-3018

### IBM 2770 CONFIGURATORS (MANUAL)

This manual illustrates typical configurations of the IBM 2770 Data Communication System; each input or output device that can be attached to the system is illustrated in at least one of the typical configurations. "Maximum Configuration" charts list all valid maximum configurations of input/output devices that can be attached to the 2770 system.

Specify and Special features common to both domestic and World Trade Corporation (WTC) systems and those unique to WTC systems are listed for the IBM 2772 Multi-Purpose Control Unit and Keyboard and for each input or output device that can be attached to the system.  
Manual, 88 pages

GA27-3019

### IBM 2770 DATA COMMUNICATION SYSTEM

#### INSTALLATION MANUAL--PHYSICAL PLANNING

This publication presents detailed information concerning the physical characteristics of the IBM 2770 Data Communication System. Dimensions, weights, service clearances, physical information for each unit, and environmental and electrical requirements are included. Particular attention is devoted to information necessary for the customer to prepare his premises for actual installation of equipment. Planning assistance is available from IBM sales and installation planning representatives.  
Systems Reference Library Manual, 42 pages

GA27-3038

### OPERATOR'S GUIDE: IBM 2770 DATA COMMUNICATION SYSTEM

This Operator's Guide is designed specifically for personnel operating or implementing the IBM 2770 Data Communication System. Step-by-step operating procedures and flowchart-type error recovery procedures are included for the control unit and for each of the input/output devices.

The procedures for initiating, answering and terminating a switched-network communications link with another terminal or processor are discussed. Error message formatting and transmission procedures are also described in detail.  
Operator's Guide, 150 pages

GA27-3058

### IBM 3872 MODEM USER'S GUIDE

The IBM 3872 Modem can transfer data at rates of 2400 or 1200 bits per second. It operates on dedicated (leased or privately owned), voice-grade communications facilities. In the USA and Canada, the 3872 also operates on the public switched network.

In this publication, the 3872 is described as an item of equipment in the medium-speed modem field. The manual is in four main parts: Part 1 describes (in general terms) the IBM 3872 Modem, planning considerations, and equipment and facility considerations; Part 2 presents 3872 operating procedures and offline problem determination procedures; Part 3 describes (in detail) the IBM 3872 Modem: interface specifications, installation specifications, channel specifications, and special features. Considerations in using the 3872 in World Trade countries are included in appropriate places in the manual and are summarized in Part 4, which also contains the glossary.

This publication is intended for system planners, systems engineers, installation planners, operators, and supervisory personnel. A knowledge of teleprocessing systems is a prerequisite for Part 3 only. Operator information (Part 3) is separated from general and specific descriptive information, for easier accessibility.  
System Library User's Guide, 70 pages

GA27

GX28

GA27-3059

**IBM 3872 MEDIUM-SPEED MODEM DIGEST - REFERENCE SUMMARY**  
The information contained in this publication is a digest of the characteristics of the IBM modems listed in the chart on the inside. Each characteristic is described, following, in the order of appearance, left-to-right, in the chart.  
Note: A similar chart, of the characteristics of IBM Line Adapters using FSK (frequency shift keying) modulation, is contained in Planning and Installation of a Data Communications System Using IBM Line Adapters (GA24-3435). Detailed information on each modem is contained in the IBM manual shown under "System Library Manual" in the chart. Clear-to-send delay, a modem characteristic that effects system throughput, is omitted here because system design and modem design have variations too complex to state simply. Refer to the appropriate manual for the individual modem for a description of clear-to-send delay options.  
Space is provided in the chart for notes by the users.  
Modem Digest, 12 pages

GA27-3062

**IBM 3872 MODEM PROBLEM DETERMINATION CARD**  
This foldout card document normally accompanies a 3872 Modem to help the customer determine who to call when a communications channel using the 3872 becomes troublesome.  
8-1/2 x 11 inches, 8 cards

GA33-0002

**IBM 3874 MODEM USER'S GUIDE**  
This publication is written for operators, system engineers, and installation planning engineers who are using or intend to use the IBM 3874 modem in a teleprocessing system. The manual is divided into four parts:  
o Part 1. General Information  
o Part 2. Operator's Information  
o Part 3 Technical Description  
o Part 4. Appendixes.  
No previous teleprocessing experience is required to understand the information given in Parts 1 and 2.  
Manual, 78 pages

GA36-0001

**IBM 4872 MODEM MODEL 1**  
This publication introduces the IBM 4872 Modem Model 1 and describes its role in a point-to-point network. Details concerning installation planning, operation, and special features are also included.  
Systems Reference Library Manual, 22 pages

GA36-0004

**IBM 4872 MODEM MODELS 2 AND 3**  
This publication introduces the IBM 4872 Modem Models 2 and 3 and describes their role in a multipoint network. Details concerning installation planning, operation, and special features are also included.  
Systems Reference Library Manual, 18 pages

GB21-1318

**1130 FORTRAN COMMERCIAL SUBROUTINES FOR DOS/VS FDP 5798-BCT FDP AVAILABILITY NOTICE**  
This 4 page document, written in Assembler, describes the purpose and highlights of 1130 FORTRAN Commercial Subroutines for DOS/VS.  
The 1130 FORTRAN Commercial Subroutine for DOS/VS FDP offers the 1130 FORTRAN Customer converting to DOS/VS compatibility with the 1130 Commercial Subroutine Type II Program (1130-SE-25X, Version 3). The FDP consists of Assembler Language subroutines which are functionally equivalent to each 1130 Commercial Subroutine. In addition, it also provides compatibility for the 1130 FORTRAN CALL DATSW Statement. The FDP allows the 1130 FORTRAN Commercial Subroutine user to run his programs under DOS/VS with minimal change.  
This Availability Notice contains complete ordering information for the Field Developed Program and all its related documentation, for management and data processing personnel who are prospective users of the program and others who require information concerning it.  
Availability Notice

SB21-1319

**1130 FORTRAN COMMERCIAL SUBROUTINES FOR DOS/VS FDP 5798-BCT FDP PROGRAM DESCRIPTION/OPERATIONS MANUAL**  
This 120 page document, written in Assembler, describes the capabilities of the FDP and the programs of the 1130 FORTRAN Commercial Subroutines for DOS/VS.  
The 1130 FORTRAN Commercial Subroutine for DOS/VS FDP offers the 1130 FORTRAN customer converting to DOS/VS compatibility with the 1130 Commercial Subroutine Type II Program (1130-SE-25X, Version 3). The FDP consists of Assembler Language subroutines which are functionally equivalent to each 1130 Commercial Subroutine. In addition, it also provides compatibility for the 1130 FORTRAN CALL DATSW Statement. The FDP allows the 1130 FORTRAN Commercial Subroutine user to run his programs under DOS/VS with minimal change.  
This Program Description/Operations Manual provides the user with sufficient information to understand, install and successfully use the program.

Program Description/Operations Manual, 120 pages

GB30-0521

**KWIC INDEX TO GSD FIELD DEVELOPED PROGRAMS INSTALLED USER PROGRAMS**  
This brochure provides a ready reference to all General Systems Division FDP's/VP's released through June 30, 1974.  
8-1/2 x 11 inch brochure, 36 pages

GC20-1668

**DATA COMMUNICATIONS PRIMER**  
This manual is intended for the user of data processing equipment who has a need for data communications services. It introduces the reader to the world of data communications and enables him to approach the common carriers for competent, detailed, up-to-date information on facilities, specifications and tariffs to satisfy his needs.  
Student Text

GC20-1769

**FINANCE AND SECURITIES INDUSTRIES BIBLIOGRAPHY**  
The purpose of this bibliography is to list and categorize IBM application publications and programs that are pertinent to finance and securities industries.  
o Section I classifies these publications and programs by industry and application.  
o Section II contains abstracts of application briefs and application manuals, in form number sequence.  
o Section III contains abstracts of application programs, field developed programs, installed user programs, and program products, in program number sequence.  
Manual, 44 pages

SH20-1380

**CUSTOMHOUSE BROKER DOCUMENT PROCESSING AND ACCOUNTING SYSTEM IUP 5796-ARW, DESCRIPTION/OPERATIONS**  
This manual is designed to provide the user with sufficient information to understand, install and successfully use the package. Individual programs are described. User installation and operator instructions are included. The Custom House Brokerage and Accounting System is designed to aid in the preparation of the primary documentation needs of a small Custom House Broker. Some of the major functions provided by the system include:  
o Preparation of customs documents  
o Preparation of delivery forms to carrier  
o Preparation of invoice to customer  
o Consumption Entry Register preparation  
o Accounts Receivable Aged Trial Balance  
o Inland Bill of Lading Preparation  
o Multiple Delivery Orders  
Major advantages include calculation of the amount of duty due to US Customs, timely documentation preparation and ease of operation by clerical personnel and the availability of management information concerning account status.  
Manual, 190 pages

GX27-2900

**IBM PHYSICAL PLANNING TEMPLATE: COMMUNICATIONS TERMINALS**  
This template gives a scaled representation of the physical planning specifications for the IBM Communications Terminals.  
Template, 8 1/2 x 11, 1 page

GX27-2909

**PHYSICAL PLANNING TEMPLATE IBM 2770 DATA COMMUNICATION SYSTEM**  
This equipment template on acetate sheet is for the 2770 Data Communication System. Its scale is 1/4 inch equals 1 inch.  
Template

GX28-6383

**REFERENCE CARD, FORTRAN IV**  
FORTRAN IV information is included for IBM System/360 Basic Programming Support System (BPS Card and BPS Tape), IBM System/360 Tape Operating System (TOS), IBM System/360 Disk Operating System (DOS), IBM System/360 Operating System (E, G, and H), IBM System/360 Model 44 Programming System (44PS), IBM System/360 Time Sharing System (TSS), IBM 1130 System (1130), IBM 1800 System (1800), and United States of America Standards Institute (USASI).  
Booklet, 3 x 7, 12 pages

GX28-8195

**IBM GUIDE TO AMERICAN NATIONAL STANDARD COBOL REFERENCE CARD**  
This reference summary provides a condensed version of essential information concerning American National Standard COBOL Program Products: DOS Subset, DOS Full, OS Full versions 3 and 4, System/3, 1130, TSO Prompter, and Interactive Debug. For each, it includes operation system core requirements for compiler, data set compatibility, device support, preprogram number, monthly fee, debugging aids, availability, particular audience, documentation numbers and other important details.  
Fanfold card, five panels, pocket size



G320

G320-8096

CUSTOMHOUSE BROKER...IUP 5796-AEW NOTICE

This notice is intended to alert potential customers to the fact that this program has been released.

The Custom House Brokerage and Accounting System is designed to aid in the preparation of the primary documentation needs of a small Custom House Broker. Some of the major functions provided by the system include:

- Preparation of customs documents
- Preparation of delivery forms to carrier
- Preparation of invoice to customer
- Consumption Entry Register preparation
- Accounts Receivable Aged Trail Balance
- Inland Bill of Lading Preparation
- Multiple Delivery Orders

Major advantages include calculation of the amount of duty due to US Customs, timely documentation preparation and ease of operation by clerical personnel and the availability of management information concerning account status.

Release notice



## Part 3. Current Editions by Order Number

The flag \*\* preceding an order number indicates a new or changed item. The flag # following an order number shows that more than one edition is current. Any Technical Newsletter applying to the latest edition also applies to all earlier editions but is listed only once. (See Preface.)

04	GA21-9012-7			IBM 1231 OPTICAL MARK PAGE READER MODEL 1; IBM 1232 OPTICAL MARK PAGE READER MODEL 1 WITH IBM 534 CARD PUNCH MODEL 3; COMPONENT DESCRIPTION AND OPERATING PROCEDURES
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13	GA26-1575-1			IBM 1130 SPECIAL FEATURE DESCRIPTION - HIGH SPEED BINARY SYNCHRONOUS COMMUNICATIONS ADAPTER
14	GA26-1579-0			IBM 1130 CUSTOM FEATURE DESCRIPTION-ATTACHMENT CHANNEL RPQ NUMBER 831552
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00	GA26-5915-10			IBM 1130 CONFIGURATOR
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09	**GA27-3004-2#			COMPONENT DESCRIPTION IBM 2285 DISPLAY COPIER
09	**GA27-3005-3			GENERAL INFORMATION - BINARY SYNCHRONOUS COMMUNICATIONS
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73	LB21-0207-0			IBM 1130 COMPOSITION SYSTEM - SYSTEMS GUIDE
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25	SB21-0581-0	SN20-6216		IBM 1130 FORTRAN TO SYSTEM/3 FORTRAN IV CONVERSION AID FOR SYSTEM/3 MODEL 10 DISK - PROGRAM DESCRIPTION/OPERATIONS MANUAL - FDP NUMBER 5798-AJY
25	LB21-0582-0	LN20-6217		IBM 1130 FORTRAN TO SYSTEM/3 FORTRAN IV CONVERSION AID FOR SYSTEM/3 MODEL 10 DISK - SYSTEMS GUIDE - FDP NUMBER 5798-AJY
63	**GB21-0785-2			BILLING ACCOUNTS RECEIVABLE INVENTORY, AND SALES ANALYSIS FOR THE 1130 SUBMODEL 4: FDP'S 5798-ANM, 5798-ANW, 5798-ANP, AND 5798-ANR NOTICE
63	SB21-0786-0			BILLING FOR THE IBM 1130 (4K): FDP 5798-ANM
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				1800 DATA ACQUISITION AND CONTROL SYSTEM
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28	GC21-5002-3#			IBM 1130 RPG LANGUAGE
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30	GC26-3706-5	GW33-8111		IBM 1130 SYNCHRONOUS COMMUNICATIONS, ADAPTER SUBROUTINES
				PROGRAM NUMBER 1130-LM-004
20	GC26-3709-4			IBM 1130 DISK MONITOR SYSTEM, VERSION 2, SYSTEM INTRODUCTION
25	GC26-3715-8#	**GW34-0181		IBM 1130/1800 BASIC FORTRAN IV LANGUAGE
36	**GC26-3717-10#			IBM 1130 DISK MONITOR SYSTEM, VERSION 2, PROGRAMMER'S AND
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36	GC26-3750-3#			IBM 1130 DISK MONITOR SYSTEM (VERSION 1) REFERENCE MANUAL
30	GC26-3755-2			IBM 1130/1800 PLOTTER SUBROUTINES
21	**GC26-3778-2			IBM 1130/1800 ASSEMBLER LANGUAGE (1130 DMS AND 1800 MPX)
21	GC26-5927-6#			IBM 1130 ASSEMBLER LANGUAGE (1130 C/PT)
30	**GC26-5929-8#			IBM SUBROUTINE LIBRARY (SRL), PROG. NOS. 1130-LM-001, 002
	GC26-5929-7#			
25	GC27-6934-1	GW27-1310	GW27-1308	IBM 1130/2250 GRAPHIC SUBROUTINE PACKAGE FOR BASIC
		GW27-1319		FORTRAN IV, PROGRAM NUMBER 1130-LM-008
25	GC27-6937-2#			IBM SYSTEM/360 OPERATING SYSTEM AND 1130 DISK MONITOR
				SYSTEM, SYSTEM/360 - 1130 DATA TRANSMISSION FOR FORTRAN
30	GC34-0015-0	GW34-0014		PROGRAM NUMBERS 360S-LM-542 AND 1130-LM-011
				IBM 1130 COMPUTING SYSTEM,
				MULTIPLE TERMINAL COMMUNICATIONS ADAPTER (MTCA),
63	GE20-0197-3			INPUT/OUTPUT CONTROL SYSTEM (IOCS) SUBROUTINES
00	GF20-8172-8			1130 ROUTE ACCOUNTING SYSTEM FOR DAIRIES AND BAKERIES -
82	GH12-5002-1			APPLICATION DESCRIPTION, PROG. NO. 1130-DX-01X
				BIBLIOGRAPHY OF DATA PROCESSING TECHNIQUES
82	GH12-5103-0	**GW12-5025		IBM 1130 AND 1800 SUBROUTINE LIBRARY-MATHEMATICS (SL-MATH)
				PPDO (PROGRAM PRODUCT DESIGN OBJECTIVES), PROG. NO. 5711-XM2
				IBM SYSTEM/360 AND SYSTEM/370, IBM 1130 AND 1800 SUBROUTINE
				LIBRARY-MATHEMATICS (SL-MATH) GENERAL INFORMATION MANUAL
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73	GH20-0139-3			1130 TYPE COMPOSITION PROGRAM (1130-DP-04X),
				APPLICATION DESCRIPTION
82	GH20-0140-2	GW20-1991		1130 NUMERICAL SURFACE TECHNIQUES AND CONTOUR MAP PLOTTING
				VERSION 2, APPLICATION DESCRIPTION, PROG. NOS. 1130-CX-11X,
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65	GH20-0143-4			CIVIL ENGINEERING COORDINATE GEOMETRY (COGO) FOR IBM 1130
				PROG NO. 1130-EC-02X - APPLICATION DESCRIPTION
82	GH20-0208-3			1800/1130 CONTROL OPTIMIZATION PROGRAM (COP/1800-1130)
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83	GH20-0209-2			1130 CONTINUOUS SYSTEM MODELING PROGRAM (1130-CX-13X)
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25	GH20-0221-3			1130 COMMERCIAL SUBROUTINE PACKAGE APPLICATION DESCRIPTION
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82	GH20-0225-2			1130 SCIENTIFIC SUBROUTINE PACKAGE (1130-CM-02X) APPLICATION
				DESCRIPTION MANUAL
20	GH20-0235-2			1130 DATA PRESENTATION SYSTEM, VERSION 2, APPLICATION DES-
				SCRIPTION MANUAL, PROG. NO. 1130-CX-14X
65	GH20-0237-3			STRUCTURAL ENGINEERING SYSTEM SOLVER (STRESS) FOR THE
				IBM 1130, MODEL 2B (1130-EC-03X) VERSION 2, APPLICATION
				DESCRIPTION
82	GH20-0238-2			1130 LINEAR PROGRAMMING-MATHEMATICAL OPTIMIZATION
				SUBROUTINE SYSTEM (1130 LP-MOSS): APPLICATION DESCRIPTION,
				PROG NO. 1130-CO-16X
25	GH20-0241-4#			1130 COMMERCIAL SUBROUTINE PACKAGE (1130-SE-25X), VERSION 3
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82	GH20-0252-4			1130 SCIENTIFIC SUBROUTINE PACKAGE (1130-CM-02X)
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65	GH20-0268-1	GW20-2020	GW20-1914	1130 MECHANISM DESIGN SYSTEM - GEARS AND SPRINGS, VERSION 2,
				APPLICATION DESCRIPTION MANUAL, PROG. NO. 1130-EM-01X
83	GH20-0282-2			1130 CONTINUOUS SYSTEM MODELING PROGRAM: PROGRAM DESCRIPTION
				AND OPERATIONS MANUAL, PROG. NO. 1130-CX-13X
83	GH20-0284-2			1130 CONTINUOUS SYSTEM MODELING PROGRAM (1130-CX-13X) SYSTEM
				MANUAL
73	GH20-0287-2			1130 TYPE COMPOSITION PROGRAM (1130-DP-04X),
				PROGRAMMER'S MANUAL
73	GH20-0288-2#			1130 TYPE COMPOSITION PROGRAM (1130-DP-04X),
				OPERATOR'S MANUAL
65	GH20-0301-2#			CIVIL ENGINEERING COORDINATE GEOMETRY (COGO) FOR
				IBM 1130, PROG. NO. 1130-EC-02X - USER'S MANUAL
63	GH20-0328-1			1130 ROUTE ACCOUNTING FOR DAIRIES AND BAKERIES
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63	GH20-0330-1#			1130 ROUTE ACCOUNTING SYSTEM FOR DAIRIES AND BAKERIES
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79	GH20-0333-2		1130 STATISTICAL SYSTEM (1130-CA-06X) USER'S MANUAL
30	GH20-0337-2	GN20-2828	1130 DATA PRESENTATION SYSTEM (1130-CX-14X) VERSION 2 OPERATIONS GUIDE
30	GH20-0338-2	GN20-2829	1130 DATA PRESENTATION SYSTEM (1130-CX-14X) VERSION 2 PROGRAM REFERENCE MANUAL
65	GH20-0340-4	GN20-2807	STRUCTURAL ENGINEERING SYSTEM SOLVER (STRESS) FOR THE IBM 1130 (1130-EC-03X) VERSION 2, USER'S MANUAL
79	GH20-0341-1		1130 STATISTICAL SYSTEM (1130-CA-06X) APPLICATION DESCRIPTION
81	GH20-0342-4		1130 PROJECT CONTROL SYSTEM VERSION 2: PROGRAM DESCRIPTION MANUAL PROG. NO. 1130-CP-05X
81	GH20-0343-4		1130 PROJECT CONTROL SYSTEM VERSION 2: OPERATIONS MANUAL PROG. NO. 1130-CP-05X
82	GH20-0345-2		1130 LINEAR PROGRAMMING-MATHEMATICAL OPTIMIZATION SUBROUTINE SYSTEM (1130 LP-MOSS) (1130-CO-16X) PROGRAM REFERENCE MANUAL
82	GH20-0351-1	GN20-2543	1800/1130 CONTROL OPTIMIZATION PROGRAM (COP/1800-1130) VERSION 2 (1800-CC-01X) PROGRAM DESCRIPTION AND OPERATIONS
82	GH20-0356-1		1130 NUMERICAL SURFACE TECHNIQUES AND CONTOUR MAP PLOTTING VERSION 2 - OPERATOR'S MANUAL - PROG. NOS. 1130-CX-11X, 38X
82	GH20-0357-1#		1130 NUMERICAL SURFACE TECHNIQUES AND CONTOUR MAP PLOTTING PROGRAMMER'S MANUAL, PROG. NO. 1130-CX-11X
65	GH20-0365-1		1130 MECHANISM DESIGN SYSTEM - GEARS AND SPRINGS, VERSION 2, PROGRAM DESCRIPTION MANUAL, PROG. NO. 1130-EM-01X
65	GH20-0366-1		1130 MECHANISM DESIGN SYSTEM - GEARS AND SPRINGS, VERSION 2, OPERATIONS MANUAL, PROG. NO. 1130-EM-01X
75	GH20-0401-0	GN20-1963	1130 ECONOMIC EVALUATION OF PETROLEUM PROJECTS PROGRAM (1130-MP-01X) APPLICATION DESCRIPTION
75	GH20-0402-0	GN20-1964	1130 ECONOMIC EVALUATION OF PETROLEUM PROJECTS PROGRAM (1130-MP-01X) PROGRAMMER'S MANUAL
75	GH20-0403-1		1130 ECONOMIC EVALUATION OF PETROLEUM PROJECTS PROGRAM (1130-MP-01X) OPERATOR'S MANUAL
75	GH20-0405-0	GN20-1966	1130 CASING DESIGN PROGRAM (1130-MP-02X) APPLICATION DESCRIPTION
75	GH20-0406-0	GN20-1967	1130 CASING DESIGN PROGRAM (1130-MP-02X) - PROGRAMMER'S MANUAL
75	GH20-0407-0	GN20-1968	1130 CASING DESIGN PROGRAM (1130-MP-02X) OPERATOR'S MANUAL
75	GH20-0409-1		1130 DECLINE CURVE ANALYSIS PROGRAM (1130-MP-03X) APPLICATION DESCRIPTION
75	GH20-0410-1		1130 DECLINE CURVE ANALYSIS PROGRAM (1130-MP-03X) PROGRAMMER'S MANUAL
75	GH20-0411-1		1130 DECLINE CURVE ANALYSIS PROGRAM (1130-MP-03X) OPERATOR'S MANUAL
75	GH20-0413-0	GN20-1970	1130 TARNER MATERIAL BALANCE PROGRAM (1130-MP-04X) APPLICATION DESCRIPTION
75	GH20-0414-0	GN20-1971	1130 TARNER MATERIAL BALANCE PROGRAM (1130-MP-04X) PROGRAMMER'S MANUAL
75	GH20-0415-1		1130 TARNER MATERIAL BALANCE PROGRAM (1130-MP-04X) OPERATOR'S MANUAL
75	GH20-0417-0	GN20-1972	1130 SCHILTHUIS MATERIAL BALANCE PROGRAM (1130-MP-05X) APPLICATION DESCRIPTION
75	GH20-0418-1#		1130 SCHILTHUIS MATERIAL BALANCE PROGRAM (1130-MP-05X) PROGRAMMER'S MANUAL
75	GH20-0419-1		1130 SCHILTHUIS MATERIAL BALANCE PROGRAM (1130-MP-05X) OPERATOR'S MANUAL
75	GH20-0421-0	GN20-1974	1130 TWO-DIMENSIONAL WATERFLOODING PROGRAM (1130-MP-06X) APPLICATION DESCRIPTION
75	GH20-0422-1		1130 TWO-DIMENSIONAL WATERFLOODING PROGRAM (1130-MP-06X) PROGRAMMER'S MANUAL
75	GH20-0423-1		1130 TWO-DIMENSIONAL WATERFLOODING PROGRAM (1130-MP-06X) OPERATOR'S MANUAL
75	GH20-0425-1		1130 GAS DELIVERABILITY PROGRAM (1130-MP-07X) APPLICATION DESCRIPTION
75	GH20-0426-0	GN20-1976	1130 GAS DELIVERABILITY PROGRAM (1130-MP-07X) PROGRAMMER'S MANUAL
75	GH20-0427-1		1130 GAS DELIVERABILITY PROGRAM (1130-MP-07X) OPERATOR'S MANUAL
75	GH20-0429-1		1130 MULTI-STAGE FLASH CALCULATION PROGRAM (1130-MP-08X) APPLICATION DESCRIPTION
75	GH20-0430-1		1130 MULTI-STAGE FLASH CALCULATION PROGRAM (1130-MP-08X) PROGRAMMER'S MANUAL
75	GH20-0431-0	GN20-1977	1130 MULTI-STAGE FLASH CALCULATION PROGRAM (1130-MP-08X) OPERATOR'S MANUAL
75	GH20-0433-1		1130 VELOCITY FUNCTIONS FROM TIME-DEPTH DATA PROGRAM (1130-MP-09X) APPLICATION DESCRIPTION
75	GH20-0434-0	GN20-1978	1130 VELOCITY FUNCTIONS FROM TIME-DEPTH DATA PROGRAM (1130-MP-09X) PROGRAMMER'S MANUAL
75	GH20-0435-1		1130 VELOCITY FUNCTIONS FROM TIME-DEPTH DATA PROGRAM (1130-MP-09X) OPERATOR'S MANUAL
75	GH20-0437-0	GN20-1979	1130 WAVE-FRONT RAY-PATH DETERMINATION PROGRAM (1130-MP-10X) APPLICATION DESCRIPTION
75	GH20-0438-0	GN20-1980	1130 WAVE-FRONT RAY-PATH DETERMINATION PROGRAM (1130-MP-10X) PROGRAMMER'S MANUAL
75	GH20-0439-1		1130 WAVE-FRONT RAY-PATH DETERMINATION PROGRAM (1130-MP-10X) OPERATOR'S MANUAL
75	GH20-0441-0	GN20-1981	1130 SYNTHETIC SEISMOGRAM PROGRAM (1130-MP-11X) APPLICATION DESCRIPTION
75	GH20-0442-0	GN20-1982	1130 SYNTHETIC SEISMOGRAM PROGRAM (1130-MP-11X) PROGRAMMER'S MANUAL
75	GH20-0443-1		1130 SYNTHETIC SEISMOGRAM PROGRAM (1130-MP-11X) OPERATOR'S MANUAL
75	GH20-0445-1		1130 GRAVITY AND MAGNETICS CONTINUATIONS DERIVATIVES AND RESIDUALS PROGRAM (1130-MP-12X) APPLICATION DESCRIPTION

75	GH20-0446-1			1130 GRAVITY AND MAGNETICS CONTINUATIONS DERIVATIVES AND RESIDUALS PROGRAM (1130-MP-12X) PROGRAMMER'S MANUAL
75	GH20-0447-1			1130 GRAVITY AND MAGNETICS CONTINUATIONS DERIVATIVES AND RESIDUALS PROGRAM (1130-MP-12X) OPERATOR'S MANUAL
75	GH20-0449-0	GN20-1983		1130 THEORETICAL GRAVITY OF A 3-D MASS PROGRAM (1130-MP-13X) APPLICATION DESCRIPTION
75	GH20-0450-0	GN20-1984		1130 THEORETICAL GRAVITY OF A 3-D MASS PROGRAM (1130-MP-13X) PROGRAMMER'S MANUAL
75	GH20-0451-0	GN20-1985		1130 THEORETICAL GRAVITY OF A 3-D MASS PROGRAM (1130-MP-13X) OPERATOR'S MANUAL
75	GH20-0453-0	GN20-1986		1130 QUANTITATIVE LOG ANALYSIS PROGRAM (1130-MP-14X) APPLICATION DESCRIPTION
75	GH20-0454-0	GN20-1987		1130 QUANTITATIVE LOG ANALYSIS PROGRAM (1130-MP-14X) PROGRAMMER'S MANUAL
75	GH20-0455-1			1130 QUANTITATIVE LOG ANALYSIS PROGRAM (1130-MP-14X) OPERATOR'S MANUAL
75	GH20-0457-0	GN20-1988		1130 DIPMETER PROGRAM (1130-MP-15X) APPLICATION DESCRIPTION
75	GH20-0458-0	GN20-1989		1130 DIPMETER PROGRAM (1130-MP-15X) PROGRAMMER'S MANUAL
75	GH20-0459-1			1130 DIPMETER PROGRAM (1130-MP-15X) OPERATOR'S MANUAL
31	GH20-0490-1			PROBLEM LANGUAGE ANALYZER (PLAN) APPLICATION DESCRIPTION PROGRAM NUMBERS 1130-CX-25X 360A-CX-26X 360A-CX-27X
25	GH20-0520-0			1130 COMMERCIAL SUBROUTINE PACKAGE (1130-SE-25X) VERSION 3 APPLICATION DESCRIPTION
60	GH20-0522-3			DISTRIBUTION INDUSTRIES BIBLIOGRAPHY
60	GH20-0530-4			PUBLIC UTILITY INDUSTRIES BIBLIOGRAPHY
60	GH20-0531-4			MEDIA INDUSTRIES BIBLIOGRAPHY
30	GH20-0535-2			PLAN GRAPHICS SUPPORT FOR THE IBM 2250 ON SYSTEM/360 (OS) OR IBM 1130 - APPLICATION DESCRIPTION MANUAL, PROG. NOS. 1130-CX-33X AND 360A-CX-34X
60	GH20-0536-4			INSURANCE INDUSTRY BIBLIOGRAPHY
75	GH20-0546-1			1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CHAP): APPLICATION DESCRIPTION MANUAL, PROG. NO. 5711-P11
82	GH20-0562-1	GN20-2033	GN20-2324	LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) APPLICATION DESCRIPTION MANUAL (5711-C01)
81	GH20-0576-0	GN20-2003		1130 PROJECT CONTROL SYSTEM VERSION 2 (1130-CP-05X) APPLICATION DESCRIPTION MANUAL
65	GH20-0580-0	GN20-2125	GN20-1993	IBM 1130 RIGID FRAME SELECTION PROGRAM (RFSP) (1130-EC-09X): PROGRAM DESCRIPTION AND OPERATIONS MANUAL
31	GH20-0594-1	GN20-1997		PROBLEM LANGUAGE ANALYZER (PLAN): PROGRAM DESCRIPTION MANUAL PROG. NOS. 1130-CX-25X AND 360A-CX-26X, -27X
31	GH20-0595-2			1130 PROBLEM LANGUAGE ANALYZER (PLAN) (1130-CX-25X) OPERATIONS MANUAL
65	GH20-0598-0	GN20-2127		RIGID FRAME SELECTION PROGRAM (RFSP): APPLICATION DESCRIPTION, PROG. NOS. 1130-EC-09X, 5734-EC1, 5736-EC1
65	SH20-0612-0			RIGID FRAME SELECTION PROGRAM (RFSP) OPERATIONS MANUAL PROGRAM NUMBER 1130-EC-09X 5734-EC1 5736-EC1
30	GH20-0614-0			PLAN GRAPHICS SUPPORT FOR THE IBM 2250 ON SYSTEM/360 (OS) OR IBM 1130 PROGRAM DESCRIPTION MANUAL PROGRAM NUMBERS 360A-CX-34X AND 1130-CX-33X
30	GH20-0616-0			PLAN GRAPHICS SUPPORT FOR THE IBM 2250 ON THE IBM 1130 OPERATIONS MANUAL PROGRAM NUMBER 1130-CX-33X
65	GH20-0617-0			MECHANISM DESIGN SYSTEM-KINEMATICS PROGRAM DESCRIPTION MANUAL PROGRAM NOS. 1130-EM-03X, 360A-EM-04X AND 360A-EM-05X
65	GH20-0618-0			MECHANISM DESIGN SYSTEM-KINEMATICS OPERATIONS MANUAL PROGRAM NOS. 1130-EM-03X, 360A-EM-04X AND 360A-EM-05X
31	GH20-0626-0			PROBLEM LANGUAGE ANALYZER (PLAN) USERS' INTRODUCTION PROGRAM NUMBERS 1130-CX-25X, 360A-CX-26X AND 360A-CX-27X
82	SH20-0633-1			LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) PROGRAM DESCRIPTION MANUAL (5711-C01)
82	SH20-0637-1	SN20-2354		LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130): OPERATIONS MANUAL PROG. NO. 5711-C01
75	SH20-0687-0			1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CHAP) PROGRAM DESCRIPTION MANUAL - PROGRAM NUMBER 5711-P11
75	SH20-0688-0	SN20-2115	SN20-2590	1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CHAP) OPERATIONS MANUAL - 5711-P11
72	GH20-0742-0			1130 CONSTRUCTION ESTIMATING: APPLICATION DESCRIPTION MANUAL PROG. NO. 5711-M61
00	SH20-0797-0			1130 CONSTRUCTION ESTIMATING PROGRAM DESCRIPTION AND OPERATIONS MANUAL, PROG. NO. 5711-M61
24	GH20-0799-2			1130 COBOL GENERAL INFORMATION MANUAL (PROGRAM NUMBER 5711-CB1)
24	SH20-0816-1	SN20-2794	SN20-3102	1130 COBOL LANGUAGE SPECIFICATIONS MANUAL, PROG. NO. 5711-CB1
83	GH20-0848-1			INTRODUCTION TO THE 1130 CONTINUOUS SYSTEM MODELING PROGRAM II (CSMP II) PROGRAM NO. 5711-XS1
81	GH20-0878-0			INTRODUCTION TO PROJECT CONTROL SYSTEM II/1130 (PCSII/1130) PROGRAM NUMBER 5711-XP1
36	**GH20-0880-4#	**GN34-0199		1130 DISTRIBUTED SYSTEM PROGRAM GENERAL INFORMATION MANUAL, PROGRAM NUMBER 1130-SV-002
75	GH20-0880-3#			1130 DISTILLATION PROGRAM APPLICATION DESCRIPTION MANUAL PROGRAM NUMBER 5711-P71
75	GH20-0889-1#			1130 CSMP II PROGRAM DESCRIPTION AND OPERATIONS MANUAL PROGRAM NUMBER 5711-XS1
83	SH20-0905-0			1130 COBOL OPERATIONS MANUAL, PROGRAM NUMBER 5711-CB1
24	SH20-0927-1	SN20-3100		1130 COBOL PROGRAMMER'S GUIDE - PROGRAM NUMBER 5711-CB1
24	SH20-0928-1	SN20-3101		PROJECT CONTROL SYSTEM II/1130, PROGRAM DESCRIPTION AND OPERATIONS MANUAL
81	SH20-0969-0			PROGRAM NUMBER 5711-XP1
60	GH20-0970-1	GN20-2459		MEDICAL INDUSTRIES BIBLIOGRAPHY
72	GH20-0975-1			1130 CONSTRUCTION COST CONTROL SYSTEM APPLICATION DESCRIPTION MANUAL - PROGRAM NUMBER 5711-M62
65	GH20-0983-1			ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP II) FOR THE IBM OPERATING SYSTEM AND 1130 COMPUTING SYSTEM: APPLICATION DESCRIPTION, PROG. NOS. 5734-EE1, 5711-EE1

75	SH20-1005-0	SN20-3118	1130 DISTILLATION PROGRAM - PROGRAM DESCRIPTION AND OPERATIONS MANUAL - PROGRAM NUMBER 5711-P71
65	SH20-1015-0		ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP II) FOR THE IBM OPERATING SYSTEM AND 1130 COMPUTING SYSTEM
65	SH20-1026-1		PROGRAM DESCRIPTION MANUAL, PROG. NOS. 5734-EE1, 5711-EE1
72	SH20-1045-0		ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP II) FOR THE IBM 1130 COMPUTING SYSTEM: OPERATIONS MANUAL, PROG. NO. 5711-EE1
72	SH20-1046-0	SN20-3109	1130 CONSTRUCTION COST CONTROL SYSTEM OPERATIONS MANUAL PROGRAM NUMBER 5711-M62
31	GH20-1066-0	GN20-3056	1130 CONSTRUCTION COST CONTROL SYSTEM, 5711-M62, PROGRAM DESCRIPTION MANUAL
64	GH20-1129-1		PROBLEM LANGUAGE ANALYZER (PLAN) PROGRAM REFERENCE MANUAL PROGRAM NUMBERS 1130-CX-25X, 360A-CX-27X
64	GH20-1132-0		EPIC SOCRATES STUDENT SCHEDULING SYSTEM FOR EDUCATIONAL INSTITUTIONS - GENERAL INFORMATION
36	GH20-1144-1	**GN34-0198      **GN34-0205	PROGRAM NUMBER 5735-E91
36	GH20-1145-1	**GN34-0171	EPIC BUDGET/FINANCE FINANCIAL ACCOUNTING SYSTEM FOR EDUCATIONAL INSTITUTIONS - PROGRAM PRODUCT GENERAL INFORMATION - PROGRAM NUMBER 5735-E93
64	SH20-1242-1		1130 DISTRIBUTED SYSTEM PROGRAM - PROGRAM REFERENCE MANUAL - PROGRAM NUMBER 1130-SV-002
64	SH20-1245-1		1130 DISTRIBUTED SYSTEM - OPERATIONS GUIDE PROGRAM NUMBER 1130-SV-002
64	SH20-1252-0	SN20-3070	EPIC: SOCRATES (STUDENT SCHEDULING SYSTEM FOR EDUCATIONAL INSTITUTIONS) USER'S GUIDE - PROGRAM NUMBER 5735-E91
64	SH20-1253-0	SN20-3071	EPIC: SOCRATES STUDENT SCHEDULING SYSTEM FOR EDUCATIONAL INSTITUTIONS - OPERATIONS GUIDE PROG. NO. 5735-E91
78	**SH20-1380-0		EPIC: BUDGET/FINANCE OPERATIONS GUIDE, PROG. NO. 5735-E93
24	GH20-4045-0		EPIC: BUDGET/FINANCE USER'S GUIDE - PROGRAM NUMBER 5735-E93
82	GH20-4091-0		CUSTOMHOUSE BROKER DOCUMENT PROCESSING AND ACCOUNTING SYSTEM IUP 5796-AEW, DESCRIPTION/OPERATIONS
83	GH20-4092-0		1130 COBOL PROGRAM PRODUCT SPECIFICATIONS PROGRAM NUMBER 5711-CB1
82	GH20-4145-0		LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) FUNCTIONAL DESCRIPTION - PROGRAM PRODUCT 5711-C01
64	GH20-4317-2		1130 CONTINUOUS SYSTEM MODELING PROGRAM II FUNCTIONAL DESCRIPTION - PROGRAM PRODUCT 5711-XS1
64	GH20-4322-2		IBM 1130 AND 1800 SUBROUTINE LIBRARY MATHEMATICS (SL-MATH) SPECIFICATIONS - PROGRAM NUMBER 5711-XM2
81	GH20-4403-0		EPIC SOCRATES STUDENT SCHEDULING SYSTEM SPECIFICATION SHEET - PROG. NO. 5735-E91
75	GH20-4404-0		EPIC: BUDGET/FINANCE SPECIFICATIONS - PROGRAM NUMBER 5735-E93
72	GH20-4405-0		PROJECT CONTROL SYSTEM 11/1130 (PCS 11/1130) FUNCTIONAL DESCRIPTION - PROGRAM NUMBER 5711-XP1
72	GH20-4406-0		1130 DISTILLATION FUNCTIONAL DESCRIPTION - PROGRAM NUMBER 5711-P71
65	**GH20-4421-1		1130 CONSTRUCTION ESTIMATING PROGRAM FUNCTIONAL DESCRIPTION PROGRAM NUMBER 5711-M61
99	GJD1-1789-0		1130 CONSTRUCTION COST CONTROL SYSTEM - FUNCTIONAL DESCRIPTION PROGRAM PRODUCT 5711-M62
99	**GJD1-3040-4		ELECTRONIC CIRCUIT ANALYSIS PROGRAM II - (ECAP II) FOR THE 1130 SYSTEM: PROGRAM PRODUCT FUNCTIONAL DESCRIPTION, PROG. NO. 5711-EE1
89	GX20-1702-1#		1130 REPORT PROGRAM GENERATOR MICROFICHE LISTING PROGRAM NUMBER 1130-RG-007
89	GX20-1734-0		MICROFICHE - SOURCE LISTING
89	GX20-1761-0		IBM 1130 DISK MONITOR PROGRAM (VERSION 2) 1130-OS-005
89	GX20-1816-0		PROPORTIONAL RECORD LAYOUT FORM
89	GX20-8020-1		1130 - 1800 BINARY CARD TEMPLATE
89	GX20-8096-0		MATHEMATICAL PROGRAMMING INPUT FORM
89	GX21-9092-3		SYSTEM/360 - 1130
89	GX21-9095-2		150/10/6 PRINT CHART
89	GX21-9129-3#		FLOWCHARTING TEMPLATE
89	GX21-9129-2#		GENERAL PURPOSE CARD PUNCHING/DATA RECORDING FORM
01	GX24-6599-1		RPG CONTROL CARD AND FILE DESCRIPTION SPECIFICATIONS FORM
01	GX26-1587-0		RPG INDICATOR SUMMARY FORM
01	GX26-1588-0		RPG DEBUGGING TEMPLATE
01	GX26-3566-9		
21	GX26-3780-0	GN34-0062	MULTIPLE CARD LAYOUT FORM
15	GX26-5997-8		DECIMAL/HEXADECIMAL INTEGER CONVERSION CHART
15	**GX27-2900-1		DECIMAL/HEXADECIMAL FRACTION CONVERSION CHART
15	**GX27-2909-0		IBM 1130 REFERENCE SUMMARY
89	GX28-1464-5#		IBM 1130/1800 ASSEMBLER-LANGUAGE STATEMENTS SUMMARY (1130 DMS & 1800 MPX)
25	**GX28-6383-0		PHYSICAL PLANNING TEMPLATE IBM 1130 COMPUTING SYSTEM
25	GX28-6384-0		IBM PHYSICAL PLANNING TEMPLATE: COMMUNICATIONS TERMINALS
89	GX28-7327-6		PHYSICAL PLANNING TEMPLATE IBM 2770 DATA COMMUNICATION SYSTEM
24	**GX28-8195-0		COBOL CODING FORM
89	GX33-8000-0		REFERENCE CARD, FORTRAN IV
24	LYB0-0637-2		IBM FORTRAN IV REFERENCE CARD
99	GYB0-0791-1		FORTRAN CODING FORM
73	GY20-0040-2		IBM GUIDE TO AMERICAN NATIONAL STANDARD COBOL REFERENCE CARD
73	GY20-0041-2		1130/1800 ASSEMBLER CODING FORM
			1130 COBOL ASSEMBLY LISTING MICROFICHE - PROGRAM PRODUCT 5711-CB1
			MICROFICHE LISTINGS FOR 1130 DISTRIBUTED SYSTEM PROGRAM PROGRAM NUMBER 1130-SV-002
			1130 TYPE COMPOSITION PROGRAM SYSTEM MANUAL VOLUME I
			PROGRAM NUMBER 1130-DP-04X
			1130 TYPE COMPOSITION PROGRAM SYSTEM MANUAL VOLUME II
			PROGRAM NUMBER 1130-DP-04X

75	GY20-0046-1			1130 ECONOMIC EVALUATION OF PETROLEUM PROJECTS PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-01X
75	GY20-0047-1			1130 CASING DESIGN PROGRAM (1130-MP-02X) SYSTEM MANUAL
75	GY20-0048-1			1130 DECLINE CURVE ANALYSIS PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-03X
75	GY20-0049-1			1130 TARNER MATERIAL BALANCE PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-04X
75	GY20-0050-1			1130 SCHILTHUIS MATERIAL BALANCE PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-05X
75	GY20-0051-1			1130 TWO-DIMENSIONAL WATERFLOODING PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-06X
75	GY20-0052-1			1130 GAS DELIVERABILITY PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-07X
75	GY20-0053-1			1130 MULTI-STAGE FLASH CALCULATION PROGRAM SYSTEM MANUAL - PROGRAM NUMBER 1130-MP-08X
75	GY20-0054-1			1130 VELOCITY FUNCTIONS FROM TIME-DEPTH DATA PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-09X
75	GY20-0055-1			1130 WAVE-FRONT RAY-PATH DETERMINATION PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-10X
75	GY20-0056-1			1130 SYNTHETIC SEISMOGRAM PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-11X
75	GY20-0057-1			1130 GRAVITY AND MAGNETICS CONTINUATIONS DERIVATIVES AND RESIDUALS PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-12X
75	GY20-0058-1			1130 THEORETICAL GRAVITY OF A 3-D MASS PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-13X
75	GY20-0059-1			1130 QUANTITATIVE LOG ANALYSIS PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-14X
75	GY20-0060-1			1130 DIPMETER PROGRAM SYSTEM MANUAL PROGRAM NUMBER 1130-MP-15X
65	GY20-0064-0			CIVIL ENGINEERING COORDINATE GEOMETRY (COGO) FOR IBM 1130 SYSTEM MANUAL - PROGRAM NUMBER 1130-EC-02X
63	GY20-0078-0	GY20-0266 GY20-0152 GY20-0121	GY20-0167 GY20-0135	1130 ROUTE ACCOUNTING FOR DAIRIES AND BAKERIES SYSTEM MANUAL PROGRAM NUMBER 1130-DX-01X
65	GY20-0081-1			STRUCTURAL ENGINEERING SYSTEM SOLVER (STRESS) FOR THE IBM 1130, MODEL 2B VERSION 2 SYSTEM MANUAL PROGRAM NUMBER 1130-EC-03X
30	GY20-0089-1			1130 DATA PRESENTATION SYSTEM, VERSION 2: SYSTEM MANUAL VOLUME I - FLOWCHARTS AND NARRATIVES, PROG. NO. 1130-CX-14X
81	GY20-0091-1			1130 PROJECT CONTROL SYSTEM VERSION 2 SYSTEM MANUAL PROGRAM NUMBER 1130-CP-05X
79	GY20-0093-1			1130 STATISTICAL SYSTEM (1130-CA-06X) SYSTEM MANUAL
82	GY20-0103-1			1130 NUMERICAL SURFACE TECHNIQUES AND CONTOUR MAP PLOTTING VERSION 2 SYSTEM MANUAL, PROG. NO. 1130-CX-11X, 38X
65	GY20-0109-1			1130 MECHANISM DESIGN SYSTEM - GEARS AND SPRINGS, VERSION 2 SYSTEM MANUAL VOL. I - FLOWCHARTS & NARRATIVES (1130-EM-01X)
82	GY20-0110-1			1800/1130 CONTROL OPTIMIZATION PROGRAM (COP/1800-1130) VERSION 2 (1800-CC-01X) - SYSTEM MANUAL
82	GY20-0141-1#			1130 LINEAR PROGRAMMING - MATHEMATICAL OPTIMIZATION SUBROUTINE SYSTEM (1130-LP-MOSS) (1130-CO-16X) SYSTEM MANUAL
74	GY20-0216-1#			IBM 1130 AUTOMATED CHEMISTRY PROGRAM (1130 ACP) FOR THE 1080 DATA ACQUISITION SYSTEM (1130-UH-13X) - SYSTEM MANUAL
65	GY20-0316-0	GN20-2126		RIGID FRAME SELECTION PROGRAM (RFSP): SYSTEM MANUAL VOLUME 1 PROG. NOS. 1130-EC-09X, 5734-EC1, 5736-EC1
31	GY20-0343-0			1130 PROBLEM LANGUAGE ANALYZER (PLAN): SYSTEM MANUAL VOLUME I - FLOWCHART NARRATIVES, PROG. NO. 1130-CX-25X
31	GY20-0344-0			1130 PROBLEM LANGUAGE ANALYZER (PLAN): SYSTEM MANUAL VOLUME II - FLOWCHARTS, PROG. NO. 1130-CX-25X
65	GY20-0366-0			IBM 1130 RIGID FRAME SELECTION PROGRAM (RFSP) VOLUME 2 SYSTEM MANUAL PROGRAM NUMBER 1130-EC-09X
30	GY20-0395-0			PLAN GRAPHICS SUPPORT FOR THE IBM 2250 ON THE IBM 1130 - SYSTEM MANUAL, PROG. NO. 1130-CX-33X
65	GY20-0396-0			1130 MECHANISM DESIGN SYSTEM - KINEMATICS: SYSTEM MANUAL VOLUME I - FLOWCHARTS AND FLOWCHART NARRATIVES PROGRAM NUMBER 1130-EM-03X
65	GY20-0397-0			1130 MECHANISM DESIGN SYSTEM - KINEMATICS SYSTEM MANUAL VOLUME II - COMPILATION LISTINGS, PROG. NO. 1130-EM-03X
30	GY20-0436-0			1130 DATA PRESENTATION SYSTEM, VERSION 2 SYSTEM MANUAL VOLUME II - ASSEMBLY LISTINGS, PROG. NO. 1130-CX-14X
82	LY20-0438-1			LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) COMPILATION/ASSEMBLY LISTINGS MANUAL PROGRAM NUMBER 5711-CO1
82	LY20-0445-1			LINEAR PROGRAMMING SYSTEM/1130 (LPS/1130) SYSTEM MANUAL PROGRAM NUMBER 5711-CO1, FEATURE CODE 8806
75	LY20-0468-0			IBM 1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CMAP) SYSTEM MANUAL - VOLUME I PROGRAM NUMBER 5711-P11 FEATURE CODE 8801
75	LY20-0469-0			IBM 1130 CHARGE MATERIALS ALLOCATION PROCESSOR (1130 CMAP) SYSTEM MANUAL - VOLUME II COMPILATION LISTINGS PROGRAM NUMBER 5711-P11 FEATURE CODE 8801
72	LY20-0557-0			1130 CONSTRUCTION ESTIMATING PROGRAM SYSTEM MANUAL PROGRAM NUMBER 5711-M61
83	LY20-0636-0			1130 CONTINUOUS SYSTEM MODELING PROGRAM II (CSMP II) SYSTEM MANUAL, PROGRAM NUMBER 5711-XS1, FEATURE CODE 8009
24	LY20-0639-0	LN20-2798	LN20-3103	1130 COBOL PROGRAM LOGIC MANUAL - PROGRAM NUMBER 5711-CB1 FEATURE CODE 8011
81	LY20-0659-0			PROJECT CONTROL SYSTEM II/1130 SYSTEM MANUAL, VOLUME 2, LISTINGS - PROGRAM NUMBER 5711-XP1, FEATURE NUMBER 8015
75	LY20-0662-0			PROJECT CONTROL SYSTEM II/1130, SYSTEM MANUAL, VOLUME 1 PROGRAM NUMBER 5711-XP1, FEATURE CODE 8014
75	LY20-0677-0			1130 DISTILLATION PROGRAM - SYSTEM MANUAL PROGRAM NUMBER 5711-P71 - FEATURE NUMBER 8013
65	LY20-0692-0			ELECTRONIC CIRCUIT ANALYSIS PROGRAM II (ECAP II) FOR THE IBM OPERATING SYSTEM AND 1130 COMPUTING SYSTEM - SYSTEM MANUAL FEATURE NUMBER 8095 - PROGRAM NUMBERS 5734-EE1, 5711-EE1

81	GY20-0709-0			1130 PROJECT CONTROL SYSTEM VERSION 2, SYSTEM MANUAL: LISTINGS - PROGRAM NUMBER 1130-CP-05X
72	LY20-0711-0			1130 CONSTRUCTION COST CONTROL SYSTEM 5711-M62 SYSTEM MANUAL FEATURE NUMBER 8003
36	GY20-0786-1	**GN34-0154		IBM 1130 DISTRIBUTED SYSTEM PROGRAM LOGIC MANUAL PROGRAM NUMBER 1130-SV-002
64	LY20-0835-1			EPIC: SOCRATES, STUDENT SCHEDULING SYSTEM FOR EDUCATIONAL INSTITUTIONS: LOGIC MANUAL, PROG. PROD. 5735-E91
64	LY20-0837-0	**LN20-3072		EPIC: BUDGET/FINANCE LOGIC MANUAL - PROGRAM NUMBER 5735-E93
28	GY21-0010-0	GN21-5177		IBM 1130 RPG PROGRAM LOGIC MANUAL, PROG. NO. 1130-RG-007
36	GY26-3620-1	GY26-8009		IBM 1130/1800 CARD/PAPER TAPE PROGRAMMING SYSTEMS, PROGRAM LOGIC MANUAL
36	GY26-3714-4#	**GN34-0180		IBM 1130 DISK MONITOR SYSTEM, VERSION 2, PROGRAM LOGIC MANUAL, PROG. NOS. 1130-OS-005,006
36	GY26-3752-1#			IBM 1130 DISK MONITOR SYSTEM (VERSION 1) PROGRAM LOGIC MANUAL, PROG. NOS. 1130-OS-001,002
25	GY27-7174-0	GY27-7183	GY27-7195	IBM 1130/2250 GRAPHIC SUBROUTINE PACKAGE FOR BASIC FORTRAN IV - PROGRAM LOGIC MANUAL PROGRAM NUMBER 1130-LM-008
38	GY30-1001-1	GY33-8022		IBM 1130 REMOTE JOB ENTRY WORK STATION PROGRAM, PROGRAM LOGIC MANUAL PROGRAM NUMBER 1130-CQ-009
30	GY34-0002-0			1130 MTCA, IOCS SUBROUTINES PLM, PROG. NOS. 1130-OS-005, 006
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## IBM 1130 Bibliography

This Technical Newsletter provides replacement pages for the subject bibliography. Pages to be replaced and added are:

i through 10  
32 through 41

### Summary of Changes

Parts 1 and 3 are replaced and new abstracts are added to Part 2. All teleprocessing items applying to the 1130 and listed in *Supplemental Bibliography: Teleprocessing/Data Collection* (GA24-3089) are now also included in this bibliography. Also, the preface, subject-code index, and table of contents are revised or updated.

**Note:** *Please file this cover letter at the back of the bibliography to provide a record of changes.*

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